U.S. Department of Agriculture
Agricultural Research Service
Nonfunded
COOPERATIVE AGREEMENT

PURPOSE:

The United States Department of Agriculture, Agricultural Research Service (ARS) and the Council on Dairy Cattle Breeding (CDCB or "COOPERATOR") have been long-term partners and have a mutual interest in improving milk production, health, fertility, and conformation traits in dairy cattle. In order to continue their collaboration to improve efficiencies of bovine dairy production and to extend their efforts to improve feed efficiency and disease resistance for the national bovine dairy herd, ARS and CDCB (hereinafter "Party" or "Parties") enter into this nonfunded Cooperative Agreement (the "Agreement").

AUTHORITY:

ARS is authorized to enter into this Agreement pursuant to 7 U.S.C. 3318(b). This Agreement is subject to the General Administrative Policy for Non-Assistance Cooperative Agreements, 7 C.F.R. Part 550.

ARTICLES

Article 1. Definitions

1.1 **AIPL** means Animal Improvement Programs Laboratory of ARS.

1.2 **Third Party** means any party that is not signatory to this agreement.

1.3 **Dairy Animal** means bovine bulls, cows and offspring thereof.

1.4 **Phenotypic Data** means the historic and newly recorded physical, physiological, and performance attributes collected from Dairy Animals and their products. Examples of Phenotypic Data include but are not limited to: milk yield, percentage of fat and protein in milk, milk somatic cell count, breeding information, calving difficulty, stillbirth, health, fitness, and conformation traits. This definition includes associated information such as the birth date, parentage or ancestry, and the physical location of a Dairy Animal. Phenotypic Data are provided to AIPL and controlled by the COOPERATOR.

1.5 **Biological Material** means any physical sample including deoxyribonucleic acid (DNA) and ribonucleic acid (RNA) taken from a Dairy Animal, prepped for analysis, and placed on a panel or chip, and given to AIPL and controlled by COOPERATOR.

1.6 **Genomic Data** means information about heritable characteristics of Dairy Animals obtained by analysis of DNA or RNA or by other scientific analysis that is capable of being put into a computer readable format. Genomic Data includes, but is not limited to genotypes, sequences, gene expression and genotypic information derived in whole

or part through the use of genotypes such as imputed genotypes and single-nucleotide polymorphism (SNP) effects. Genomic Data is controlled by COOPERATOR.

1.7 **Proteomic Data** means information pertaining to a Dairy Animal's proteins including the expression, modification and interaction of such proteins. Such proteins include but are not limited to enzymes, antibodies and cytokines. Proteomic Data is provided by the COOPERATOR to AIPL and controlled by COOPERATOR.

1.8 **Cooperator Database** is composed of data including but not limited to Phenotypic Data, Genomic Data, and Proteomic Data. Only data provided by the COOPERATOR may be included.

1.9 **CGE means Calculation of Genetic Evaluations** which is the process of accessing the Cooperator Database and calculating genetic/genomic evaluations. AIPL must not conduct any official CGE without the COOPERATOR's authorization.

1.10 **Estimates of Genetic Merit** are computer calculated values which are part of genetic evaluations for Dairy Animals and are generated from Phenotypic Data and possibly Genomic Data. Genomic predictions are a type of Estimate of Genetic Merit that specifically includes Genomic Data and in the future may include Proteomic Data. Under this Agreement, COOPERATOR controls Estimates of Genetic Merit that are calculated from the Cooperator Database.

1.11 **Intellectual Property** means any process, discovery, determination, invention, composition, or improvement that results from analyzing Phenotypic Data, Genomic Data, or Proteomic Data, as well as all: (i) patents and other rights to inventions or designs; (ii) trade secrets; (iii) copyrights; (iv) rights regarding trade names, logos, domain names, URLs, trademarks, service marks and other proprietary indicia or addresses and all goodwill associated therewith; (v) any similar rights relating to intangible intellectual property; and (vi) all extensions of the foregoing. *Specifically excluded as Intellectual Property are inventions made outside the scope of this Agreement or prior to the execution of this Agreement.*

1.12 **Confidential Information** means any confidential or proprietary information provided by the other Party or any information derived from the Cooperator Database by ARS, including but not limited to, trade secrets, results, commercial or financial information that is privileged or confidential under the meaning of 5 USC 552(b)(4), Intellectual Property, Phenotypic Data, Genomic Data, Proteomic Data, Biological Materials, CGE, Estimates of Genetic Merit, and any information marked "Confidential" or "Proprietary."

1.13 **AIPL Algorithms** are methods developed solely by AIPL, and jointly by AIPL and COOPERATOR for calculating Estimates of Genetic Merit.

1.14 **Subject Invention** means any Intellectual Property of a Party conceived or first actually reduced to practice in the course of or under this Agreement related to the subject matter hereof.

1.15 **Scope of Agreement** means those activities set forth in Schedule 1, entitled "Statement of Work."

Article 2. Confidentiality

2.1 Neither Party shall disclose Confidential Information to any other party, including any other governmental department, agency, laboratory or entity, nor use such Confidential Information for any purpose other than that stated in the Statement of Work without written permission from the other Party, except as otherwise required by law. Only the Cooperator and AIPL employees may have access to Confidential Information including access to the Cooperator Database.

2.2 Each Party shall use the same degree of care to protect Confidential Information received under this Agreement as it uses to protect its own information of a similar nature, but in any event not less than reasonable care under the circumstances.

2.3 Confidential Information does not include information for which a Party can demonstrate that:

a. such Party had ownership of the Confidential Information prior to developing it or receiving it from the other Party (for the avoidance of doubt, ARS does not own Phenotypic Data, Biological Material, Genomic Data, Proteomic Data, the Cooperator Database, CGE, Estimates of Genetic Merit, or Intellectual Property provided by Cooperator, or any information derived from the Cooperator Database);

b. the information is available to the public at the time of disclosure, or becomes available after disclosure, through no fault of such Party; or

c. such Party receives the information from any other party having been granted the right to disclose the information and who agrees in writing that disclosure of the Confidential Information is permitted.

2.4 It shall not be a breach of this Agreement if a Party is required to disclose Confidential Information by a valid order of a court or other government body, or as otherwise required by law, or as necessary to establish the rights of either party under this Agreement; PROVIDED THAT the Party seeking to disclose Confidential Information shall provide prompt prior notice thereof to the other Party to enable the other Party to seek a protective order or otherwise prevent such disclosure, and PROVIDED FURTHER THAT the Confidential Information otherwise shall continue to be treated as Confidential Information.

2.5 Each party agrees to take all reasonable steps to protect the Confidential Information and Intellectual Property from unauthorized copy or use.

Article 3. Publications

3.1 ARS, subject to the requirements of this Agreement, including but not limited to Article 2 (Confidentiality) and Article 7 (Ownership of Subject Inventions), may publish information that results from this Agreement, PROVIDED:

a. The COOPERATOR shall be given an opportunity to review the information in the form that is to be published at least sixty (60) days prior to submission for publication.

b. The publication shall acknowledge this Agreement and the contributions of each Party's personnel.

c. Subject to the requirements of this Agreement, including but not limited to Article 2 (Confidentiality), this Article 3 (Publication), and Article 7 (Ownership of Subject Inventions), the final decision as to the publication content rests with the party that writes the publication.

3.2 Publication and/or other disclosure of the AIPL Algorithms shall be delayed as necessary to preserve both United States of America and foreign patent rights in a Subject Invention.

a. Such a delay of up to six months, or longer if reasonable, will only be granted if requested in writing; and

b. The requesting Party demonstrates promptness and diligence in seeking patent protection on the Subject Invention.

Article 4. Meetings, Reports and Records

4.1 Frequent and effective communication is essential to the successful accomplishment of the objectives of this Agreement. To this end, the scientific representatives of ARS and COOPERATOR shall meet (meetings need not be in person if agreed upon) at least once every 6 months to exchange information, perform critiques, and make plans and recommendations. The Parties will supply each other written progress reports at least 15 calendar days prior to each semi-annual meeting, or employ other reporting arrangements as the Parties agree.

4.2 Any such plan or recommendation that is outside the Scope of Agreement shall be reduced to writing and referred to the Authorized Agent of each Party for appropriate action. Any such plan or recommendation so referred shall not be binding upon either Party unless incorporated into this Agreement by written amendment.

4.3 Each Party shall keep complete records relating to the research that is the subject matter of this Agreement. All such records shall be available for inspection by either Party at reasonable times. The records, or true copies of them, shall be delivered to

either Party upon request.

4.4 The AIPL Algorithms that are collected, compiled, and evaluated under this Agreement shall be shared and mutually provided by COOPERATOR and ARS.

4.5 A final report summarizing the accomplishments of this Agreement shall be submitted by each Party, separately or jointly, to Authorized Agents of both Parties within 90 days of the completion of the term of this Agreement or any renewed term.

Article 5. Term

5.1 The term of this Agreement means a five year period commencing from the date of the signature of the last Party to sign this Agreement.

5.2 After the initial term, this Agreement may be renewed on an annual basis upon mutual agreement of the Parties.

Article 6. Algorithms

6.1 In the absence of a funded Cooperative Research and Development Agreement (CRADA) AIPL Algorithms developed solely by employee(s) of AIPL under this Agreement shall be owned by ARS and shall be made publicly available to others by ARS.

6.2 In the absence of a funded Cooperative Research and Development Agreement (CRADA) AIPL Algorithms co-developed by employee(s) of ARS and COOPERATOR shall be co-owned by COOPERATOR and ARS and shall be made publicly available to others by ARS.

6.3 Algorithms developed solely by employee(s) of COOPERATOR shall be owned by COOPERATOR and access to such COOPERATOR owned Algorithms will be determined by COOPERATOR.

6.4 While this Agreement is in effect, AIPL has reasonable access to the Cooperator Database to generate and improve AIPL Algorithms for calculating genetic merit and for other non-commercial research purposes jointly agreed to by the parties consistent with this Agreement. Consistent with Article 2 (Confidentiality), ARS shall not release or disclose any information derived from the Cooperator Database including but not limited to individual animal genetic evaluations.

Article 7. Ownership of Subject Inventions

7.1 All rights, title, and interest in any Subject Invention made, excluding any COOPERATOR Intellectual Property or Confidential Information, under this Agreement solely by employee(s) of AIPL shall be owned by ARS ("ARS Invention").

7.2 All rights, title, and interest in any Subject Invention made under this Agreement by at

least one (1) employee of AIPL and at least 1 employee of COOPERATOR shall be jointly owned by ARS and COOPERATOR ("Joint Invention"). CGE and Estimates of Genetic Merit conducted or generated by COOPERATOR or AIPL with COOPERATOR's authorization are a Subject Invention solely of Cooperator and may only be distributed by COOPERATOR, in accordance with the Statement of Work, for a fee if appropriate.

7.3 All rights, title, and interest in any Subject Invention made solely by employees of COOPERATOR shall be owned by COOPERATOR ("COOPERATOR Invention"). Notwithstanding the foregoing, COOPERATOR hereby grants and agrees to grant in the future a limited, non-exclusive, perpetual, royalty-free license to use the COOPERATOR Invention solely within the scope of COOPERATOR's prior written consent, which may be withheld for any reason.

7.4 Notwithstanding anything to the contrary contained herein, each party shall retain sole ownership of its Confidential Information and Intellectual Property independently developed prior to the Effective Date of this Agreement. Except as expressly provided herein, all present and future Intellectual Property rights of either party shall remain the exclusive property of such party and no rights to such Intellectual Property rights and other identifying material shall vest in the other party because of this Agreement.

7.5 Assignments & Cooperation. Each party represents and warrants that it will require all of its employees and independent contractors creating or modifying any Intellectual Property or Confidential Information hereunder to execute written assignments assigning all such individual's right, title, and interest in and to such Intellectual Property or Confidential Information to such respective party sufficient enough to enable such party to perform its obligations hereunder and license or assign such Intellectual Property or Confidential Information to the other party as applicable herein.

Article 8. Subject Invention Information

8.1 The Authorized Agents or designees of each Party shall promptly make written disclosure to each other of each Subject Invention.

8.2 This information shall be treated as Confidential Information by the receiving Party, EXCEPT that it may be shared with those having a need to know as reasonably determined by such Party.

8.3 Each Party shall provide, when requested by the other, all information in its possession, or true copies thereof, pertaining to a Subject Invention which may be necessary or useful in the preparation, filing, and prosecution of patent applications covering the Subject Invention.

8.4 The provisions of the Article 8 shall survive indefinitely with respect to any Subject Invention regardless of any expiration or termination of the Agreement, however

caused.

Article 9. Use of Name or Endorsements

9.1 COOPERATOR shall not in any way state or imply that this Agreement or the work products of this Agreement are an endorsement of its organizational units, employees, products, or services except to the extent permission is specifically granted by ARS.

Article 10. Regulatory Compliance with Government Rules & Regulations

10.1 COOPERATOR is responsible for, and ARS will offer reasonable assistance to the extent allowed by the law, obtaining appropriate opinions, permits, or licenses from Federal or State agencies, that regulate research materials or commercial products that may arise from the research work performed within the Scope of Agreement.

10.2 In carrying out its responsibilities under this Article, COOPERATOR shall:

a. Consult and coordinate regulatory approval actions with ARS; and

b. Give ARS' Authorized Agent or designee a copy of any applications and opinions, permits, or licenses issued.

10.3 Both Parties acknowledge and agree to comply with all applicable laws and regulations of the Animal and Plant Health Inspection Service, the Center for Disease Control, and Export Control Administration pertaining to possession or transference of technical information, Biological Materials, pathogens, toxins, genetic elements, genetically engineered microorganisms, vaccines, and any other items subject to regulation.

Article 11. Liability

11.1 It is understood and agreed that neither Party to this Agreement shall be responsible to the other for any damages or injuries arising out of the conduct of activities governed by this Agreement, except to the extent that such damages and/or injuries were caused by the negligent or wrongful acts or omissions of its employees, agents or officers. ARS' liability shall be limited by the Federal Tort Claims Act, 28 USC 2671, et seq.

Article 12. Termination

12.1 Either Party not in breach of this Agreement may unilaterally terminate this entire Agreement at any time by giving the other Party written notice not less than 60 calendar days prior to the desired termination date.

12.2 Articles 1. "Definitions"; 2. "Confidentiality"; 3. "Publications"; 6. "Algorithms"; 7. "Ownership of Subject Inventions"; 8. "Subject Invention Information"; 9. "Use of

Name or Endorsements"; 11. "Liability"; 12. "Termination"; 14. "Disputes"; 15. "Notices and Authorized Agents"; 21 "Severability"; 22. "Ambiguities"; 25. "Governing Law"; 27. "Entire Agreement"; and Section 4.5 shall survive indefinitely the expiration or termination of this Agreement. Section 4.3 shall survive the expiration or termination of this Agreement for two years.

12.3 Upon termination of this Agreement for any reason, ARS must not access the Cooperator Database for any reason nor use any information derived from the Cooperator Database for any purpose, other than for noncommercial research purposes for which COOPERATOR has provided written consent, which consent shall not be unreasonably withheld.

Article 13. Availability of Appropriations

13.1 The continuance of this Agreement is contingent upon availability of appropriation of funds from which expenditures may legally be made to cover ARS' contributions.

Article 14. Disputes

14.1 Any dispute arising under this Agreement, which cannot be readily resolved, shall be submitted jointly to the Authorized Agents, identified in Article 15.

14.2 Each Party agrees to seek in good faith to resolve the issue through negotiation or other forms of nonbinding dispute resolution processes mutually acceptable to the Parties.

14.3 Pending the resolution of any dispute or claim pursuant to Article 14, the Parties agree that performance of all obligations shall be pursued diligently until such time as either Party reasonably determines that the other Party has breached this Agreement and any dispute regarding such breach cannot be resolved through negotiation or other nonbinding dispute resolution.

Article 15. Notices and Authorized Agents

15.1 Notices between the Parties and copies of correspondence among the scientific and/or technical representatives of each Party that interpret or may have a bearing on the legal effect of this Agreement's terms and conditions shall be sent to the Authorized Agents. Referencing Agreement Number [XXX] thereon, send copies to:

For ARS/USDA

ARS' Authorized Agent

George Wiggans, Ph.D.
10300 BALTIMORE AVENUE
BLDG 005 BARC-WEST

BELTSVILLE, MD, 20705-2350
Tel.: 301-504-8660
Fax: 301-504-8092
Email: george.wiggans@ars.usda.gov

For Signing Party

COOPERATOR's Authorized Agent(s) *To Be Provided*
Name
Organization
Mailing Address
City, State, Zip
Tel.:
Fax:
E-mail:

Article 16. Limitation on ARS' Scientific Representative's Authority

16.1 ARS' Scientific Representative (Dr. George Wiggans or his successor) is authorized to perform the research and development falling within the Scope of Agreement. This individual is not authorized to change or interpret with authority the terms and conditions of this Agreement.

Article 17. Assignments

17.1 Neither this Agreement nor any rights or obligations of the Parties hereto shall be assigned or otherwise transferred by either Party without the prior written consent of the other Party, which consent shall not be unreasonably withheld.

17.2 In no case shall COOPERATOR assign or transfer this Agreement to a party not a citizen or legal resident of the United States.

17.3 ARS is an agency of the U.S. Government and any rights or obligations created under this Agreement are freely transferable within the U.S. Government and shall not be deemed an "assignment" as contemplated by this Article 17.

Article 18. Relationship of Parties

18.1 ARS and COOPERATOR act in their independent capacities in the performance of their respective functions under this Agreement and neither Party is to be considered the officer, agent, or employee of the other.

18.2 Each Party shall allow, consistent with this Agreement and the policies and procedures of ARS and the COOPERATOR, access to their facilities, as needed.

18.3 Each Party shall separately assign personnel, equipment, supplies, transportation, and

facilities, as needed and available to meet respective responsibilities hereunder, such resources to remain the property of the assignor.

Article 19. Force Majeure

19.1 Neither Party shall be liable for any unforeseeable event beyond its reasonable control not caused by the fault or negligence of such Party:

a. which causes the Party to be unable to perform its obligations under this Agreement; and

b. which it has been unable to overcome by the exercise of due diligence; including but not limited to, flood, drought, earthquake, storm, fire, pestilence, lightning and other natural catastrophes, epidemic, war, riot, civil disturbance or disobedience, strikes, labor dispute, failure, or sabotage of either Party's facilities or any order or injunction made by a court or public agency (a "Force Majeure Event").

19.2 In the event of the occurrence of such Force Majeure Event, the Party unable to perform shall promptly notify the other Party. It shall also:

a. Use its best efforts to resume performance as quickly as possible; and

b. Suspend performance only for such period of time as is necessary as a result of the Force Majeure Event.

Article 20. Amendment

20.1 If either Party desires a modification in this Agreement, the Parties shall confer in good faith to determine the desirability of such modification.

20.2 Such modification shall not be effective until a written amendment is signed by the Authorized Agents of both Parties.

Article 21. Severability

21.1 The illegality or invalidity of any provision of this Agreement shall not impair, affect, or invalidate the other provisions of this Agreement.

Article 22. Ambiguities

22.1 ARS and COOPERATOR agree that each Party has reviewed this Agreement and that any rule of construction to the effect that ambiguities are to be resolved against the drafting party shall not apply to the interpretation of this Agreement.

Article 23. Officials Not To Benefit

23.1 No delegate to or member of the Congress of the United States of America shall have a part of or benefit from this Agreement.

23.2 This requirement does not include entities or organizations if this Agreement is entered into for the entity's or organization's general benefit.

Article 24. Subcontracting Approval

24.1 ARS shall give prior notice to COOPERATOR, including details of the contract or other arrangement, before obtaining or using the services of a Third Party via contract or otherwise.

24.2 This Article 24 is to assure that this Agreement is not breached and rights in Subject Inventions and Confidential Information are not compromised.

ARS must not disclose Confidential Information to any Third Party contractor unless:

a. such Third Party needs to know the Confidential Information to assist ARS in the purpose for which the Third Party was contracted,

b. ARS informs such Third Party in writing of the confidential nature of the Confidential Information, and

c. such Third Party is subject to confidentiality duties or obligations to ARS that are no less restrictive than the terms and conditions of this Agreement.

Article 25. Governing Law

25.1 The construction, validity, performance, and effect of this entire Agreement shall be governed by the laws applicable to the Government of the United States of America as practiced in the Federal Courts located in the District of Columbia.

Article 26. Contingencies

26.1 While this agreement is in effect, COOPERATOR in its discretion will voluntarily make available to ARS datasets for the agreed research purposes under this Agreement. COOPERATOR has complete discretion to determine what aspects of data, including but not limited to, Phenotypic Data, Biological Material, Genomic Data, and Proteomic Data, it makes available to ARS. COOPERATOR will obtain a written release from all parties providing data to the COOPERATOR.

26.2 Execution of this Agreement is contingent upon the Parties agreeing to the Statement of Work.

Article 27. Entire Agreement

27.1 This Agreement constitutes the entire agreement between COOPERATOR and ARS

and supersedes all prior agreements and understandings between them with respect to its subject matter.

27.2 Any representations, promise, or condition in connection with such subject matter, which is not incorporated in or contemplated by this Agreement, shall not be binding upon either Party.

27.3 No modification, renewal, extension, waiver, or termination of this Agreement or any of its provisions shall be binding upon the Party against whom enforcement of such modification, renewal, extension, waiver, or termination is sought, unless made in writing and signed on behalf of such Party by that Party's Authorized Agent.

27.4 As used herein, the word "termination" includes any and all means of bringing to an end prior to its expiration by its own terms of this Agreement, or any provision thereof, whether by release, discharge, abandonment, or otherwise.

Schedule 1 Statement of Work

I. Introduction

Since the early 1900's the dairy industry and the USDA-ARS have been cooperating to improve the genetic merit of the national dairy herd, primarily through data collected on Dairy Animals. The Council on Dairy Cattle Breeding (CDCB or COOPERATOR) represents the industry members contributing to the Cooperator Database accessed for the Calculation of Genetic Evaluations and administers a quality assurance program to assure quality and integrity of the data. Historically Phenotypic Data has been collected, owned and controlled by the dairy industry and sent to the AIPL for analysis. The collaboration has resulted in improved efficiency of milk production that has improved the national dairy herd and the wider global dairy industry.

Genomics now play a vital role in understanding and improving the genetic merit of a host of organisms. Keeping abreast of the science, USDA ARS Beltsville, Maryland and its collaborators developed a panel of 54,000 DNA markers (Single Nucleotide Polymorphisms-50K SNP chip) and the more recently developed 777,962 (HD) and 2900 (3K) SNP chips. The chip allows for the collection of Genomic Data of Dairy Animals that when combined with Phenotypic Data provides accurate Estimates of Genetic Merit early in life. Early and accurate information may result in much more rapid improvement in efficiency of milk production, and can be important for improving feed efficiency, robustness, disease resistance, and product quality and composition.

II. Objectives

The objective of this Agreement is to improve the productivity, efficiency, conformation, and health of the national dairy herd, and the composition and quality of resulting products for the benefit of dairy producers and the consuming public by transferring the research knowledge of USDA-ARS scientists to COOPERATOR on the appropriate genetic models and computational procedures for the analysis of the Phenotypic and Genomic Data contained in the Cooperator Database controlled by COOPERATOR.

The Parties will:

A. Continue collection of genotypes, specifically single-nucleotide polymorphisms (SNPs), phenotypes, and begin collection of new phenotypes and Proteomic Data to improve the accuracy and comprehensiveness of the Cooperator Database accessed for the purposes of the CGE.

   a. Increase the accuracy of ancestry information by using SNP genotypes to verify and to assign parentage.

   b. Obtain additional Phenotypic Data on health, management, efficiency, conformation, and product related traits, to improve the CGE.

B. Characterize phenotypic measures of dairy practices, and provide the dairy industry, for a fee if appropriate, with information needed to determine the impact of various herd management decisions on profitability.

C. Improve accuracy of prediction of economically important traits currently evaluated, estimate genetic merit and develop genetic evaluations for new traits, and investigate methods to incorporate high-density Genomic Data.

a. Improve methodology for calculation of genome-enhanced breeding values using SNP genotypes.

b. Develop methodology for accurate genetic evaluations for traits currently evaluated and new traits such as disease resistance, feed efficiency, functional conformation, robustness, and product composition and quality.

III. Approach and Methodology

A. Collecting of Biological Material, Phenotypic, Genomic, and Proteomic Data:

a. COOPERATOR will continue to collect material and data from any party with a release providing data to the Cooperator Database.

B. Editing and maintaining collected data:

a. COOPERATOR will:

i. Assure the data are edited for accuracy prior to inclusion in the Cooperator Database.
ii. Maintain and control the Cooperator Database accessed as part of the CGE.

C. Analyzing collected data:

a. COOPERATOR will:

i. Access the Cooperator Database and apply appropriate analysis procedures through CGE to produce and distribute frequent Estimates of Genetic Merit.

IV. AIPL Responsibilities

A. AIPL will research data quality issues and develop methods to insure data added to the Cooperator Database are of high quality.

B. AIPL will develop effective analysis procedures to compute Estimates of Genetic Merit of Dairy Animals from datasets in the Cooperator Database provided by COOPERATOR.

C. AIPL will periodically publish documentation of enhancements for procedures used to compute Estimates of Genetic Merit of Dairy Animals and provide summaries of AIPL Algorithms to others for educational purposes as appropriate.

D. AIPL will determine when the information and potential benefit is sufficient to develop AIPL Algorithms for new traits.

V. *COOPERATOR Responsibilities*

A. Continue to collect Biological Material, Phenotypic and Genomic Data and collect Proteomic Data from any party with a release providing data to the Cooperator Database.

B. Produce and distribute Estimates of Genetic Merit for a fee if appropriate.

C. Conduct an effective quality certification program to assure that only high quality data are added to the Cooperator Database.

D. Host COOPERATOR Web Site, for a fee if appropriate, for access by those agreeing to the terms and conditions of the COOPERATOR.

E. Provide Cooperator Database to USDA-ARS for research purposes relating to the Scope of the Agreement.

F. Within two (2) years of the date of this Agreement, COOPERATOR will manage the Cooperator Database, and ARS will have access only for non-commercial research purposes.

COOPERATOR will supply its own administrative support as the ARS funded secretary is responsible for ARS support only.

COOPERATOR will supply its own e-mail and web addresses. Internet connection through the ARS network will be provided.