Supporting Statement – Part B

MILK AND MILK PRODUCTS

OMB No. 0535-0020

B. COLLECTION OF INFORMATION EMPLOYING STATISTICAL METHODS

Additional information on data collection, sampling, and statistical methodology can be found in the back of the data publications for each of the surveys included in this docket. Sample publications have been attached to the ROCIS submission system.

1. Describe (including a numerical estimate) the potential respondent universe and any sampling or other respondent selection method to be used. Data on the number of entities (e.g., establishments, State and local government units, households, or persons) in the universe covered by the collection and in the corresponding sample are to be provided in tabular form for the universe as a whole and for each of the strata in the proposed sample. Indicate expected response rates for the collection as a whole. If the collection has been conducted previously, include the actual response rate achieved during the last collection.

In 2010 there were approximately 62,500 dairy operations in the United States with a little over 9.2 million dairy cows. Quarterly milk production surveys consist of samples selected from each State's list of dairy producers. The list source in many States is maintained through the surveys and use of criteria (list frame development) letters. Supplemental list sources include the Brucellosis Ring Test List, Dairy Herd Improvement Association test records, and Agricultural Marketing Association regulated milk sources. Although the sample is randomly selected from the list of milk producers, the survey is a non-probability mail survey with phone follow - up to reach target responses. Mail returns from farmers are stratified by size of herd for summarization. Except for the large operators, the sample is rotated annually to reduce respondent burden.

The universe for manufactured dairy products is composed of producers, distributors, handlers, and processors of manufactured dairy products. There are about 1,100 plants currently in the universe. Approximately 100 of the 1,100 plants are required to respond to the monthly surveys (Public Law No. 106-532). The list is maintained using regulatory lists, license lists, trade association memberships, and information obtained during field travel. All plants in the universe are contacted at least once during the year. Those plants that report all of their manufactured products monthly are not required to report again on the annual survey. These surveys are followed closely by the industry and data

users. The overall response rate for the manufactured dairy products survey for 2011 is 87 percent.

The dairy product prices universe consists of plants which produce over 1 million pounds of cheddar cheese, butter, dry whey, and/or nonfat dry milk. There are 76 cheddar cheese plants, 35 butter plants, 34 dry whey plants, and 42 nonfat dry milk plants (the sum of plants exceeds the Annual Validation total (160) due to some plants producing more than one type of product) currently in the universe. The weekly surveys for the larger plants are mandatory and response rate is 100 percent.

Milk and Milk Products Response Rates for 2011					
Survey	**Sample Size**	**Freq.**	**Total Contacts**	**Total Responses**	**Response Rate**
Voluntary Surveys					
Quarterly Milk Production [1/]					
Jan	13,336	1	13,336	9,474	71.0%
Apr	11,758	1	11,758	7,717	65.6%
July	11,157	1	11,157	7,230	64.8%
Oct	10,837	1	10,837	6,794	62.7%
Manufactured Dairy Products [2/]					
Monthly	668	12	8,016	6862	85.6%
Annual	359	1	359	251	69.9%
Voluntary Subtotal	14,363		55,463	38,328	69.1%
Frequency			3.43725		
Mandatory Surveys					
Manufactured Dairy Products [3/]					
Monthly	100	12	1,200	1,200	100.0%
Dairy Product Prices [4/] [5/]					
Annual Validation	160	1	160	160	100.0%
Cheddar Cheese	28	52	1,456	1,456	100.0%
Butter	20	52	1,040	1,040	100.0%
Dry Whey	20	52	1,040	1,040	100.0%
Nonfat Dry Milk	15	52	780	780	100.0%
Survey Follow-up Materials [5/]					
Verification (2%)	2	52	104	104	100.0%
Change Notification	250	0.2	50	50	100.0%
Mandatory Subtotal	260		7,570	7,570	100.0%
Frequency			20.45946		
Overall Total	14,623		63,033	45,898	72.8%

[1/] Jan. Milk Production is the base month, the three other quarters contact only those operations that are still in business or still milking as the year progresses.

[2/] Monthly plants are the plants who produce large quantities of one or more dairy products. The annual plants are the smaller plants, many of which are seasonal producers. Some large plants that refuse to respond to monthly surveys will only be contacted with the annual survey to honor their requests.

[3/] Plants who produce dry whey or non-fat dry milk are required to report production data for these products under Public Law 106-532.

[4/] Plants who produce cheddar cheese, butter, dry whey, or nonfat dry milk are required to report prices for these products under Public Law 106-532.

2. Describe the procedures for the collection of information including:

- **statistical methodology for stratification and sample selection,**
- **estimation procedure,**
- **degree of accuracy needed for the purpose described in the justification,**
- **unusual problems requiring specialized sampling procedures**

Milk production: Surveys are conducted quarterly (January 1, April 1, July 1, and October 1) in all 50 States. Milk production questionnaires are mailed to the entire sample. States conduct a non-response telephone follow-up to ensure that adequate coverage is obtained for each stratum. In most states four strata are used for summarization. The three indications of milk cow numbers are:

a. The *direct expansion* is derived by multiplying the average number of milk cows per farm reported in each stratum by the estimated number of milk cow farms in each stratum. Individual strata expansions are added to a state total.

b. The *identical expansion* is obtained by matching current survey reports with reports for the previous quarter. After identical reports have been tabulated by stratum, a percent change for milk cows is calculated for each stratum. This indicated percent change is multiplied by the estimated number of milk cows on farms the previous quarter in each corresponding stratum and provides an indication of the current number of milk cows.

c. The *ratio-to-base expansion* is similar to the identical expansion in that the current reports are matched with reports from a January base period. This comparison is used to reflect the change in milk cows from the base month. Since all states conduct a large scale cattle inventory survey the first of each year (OMB No. 0535-0213) current reports are matched with the January 1 base period. The indicated change from the base in each stratum is applied to the estimated number of cows in each stratum at the beginning of the base. The sum of these stratum expansions is an indication of milk cow numbers for the current month or quarter.

Manufactured dairy products: State that have a small number of plants producing manufactured dairy products send questionnaires out to their entire population monthly. In States with a large number of plants, all plants in the highest, (large plant) stratum, are contacted monthly and a random sample is drawn from the smaller-sized strata.

Manufactured dairy product price's: Data are collected weekly by facsimile and web and follow-up telephone interviews are conducted for non-respondents.

Mandatory data collection for cheddar cheese, butter, dry whey, and nonfat dry milk prices are limited to firms which are expected to produce 1,000,000 pounds or more annually of one or more of the targeted commodities. This survey is in the process of being transitioned over to the Agricultural Marketing Service (AMS). NASS has been conducting this survey as a part of a cooperative agreement with AMS. The target date for this transition to take place is April 1, 2012. NASS is requesting approval to continue this data collection, in the event that AMS does not have the proper approval to take over the collection on the target date. Once everything is in place, NASS will discontinue this data collection.

3. Describe methods to maximize response rates and to deal with issues of non-response. The accuracy and reliability of information collected must be shown to be adequate for intended uses. For collections based on sampling a special justification must be provided for any collection that will not yield "reliable" data that can be generalized to the universe studied.

Directors of our State Field Offices along with HQ commodity statisticians attend numerous industry meetings throughout the year to promote the importance of our data along with the accuracy of the data. In meetings with data users, we explain how the data can be used to make wise operating decisions and how the data is also used by government agencies to make policy decisions that impact this industry. Respondents are encouraged to participate in all NASS surveys so that the data is as accurate possible and so that all political decisions can be based on timely, accurate data.

Indications from the milk production survey when read on time series charts are providing reliable indications. Total milk production data collected by NASS is compared to data reported to AMS for the various milk marketing orders. Not all States are covered under the milk marketing orders, so NASS is the only complete source of total milk production data. NASS has begun conducting this survey on a quarterly basis instead of monthly basis. In the past, the 23 largest, milk producing States were contacted monthly and the smaller States were contacted either quarterly or annually. Under the current approval request NASS will be collecting data from all 50 States on a quarterly basis to reduce respondent burden and hopefully improve the overall response rates.

Monthly estimates of manufactured dairy products are based upon an overall 87% response rate.

Weekly estimates of dairy products prices are based on firms that produce approximately 80 percent of the cheddar cheese, butter, dry whey, and nonfat dry milk.

4. Describe any tests of procedures or methods to be undertaken.

There are no tests planned for these long-running surveys.

5. Provide the name and telephone number of individuals consulted on statistical aspects of the design and the name of the agency unit, contractor(s), or other person(s) who will actually collect and/or analyze the information for the agency.

Survey design and methodology are determined by the Statistical Methods Branch, Statistics Division; Branch Chief is Dave Aune, (202)720-4008.

Sample sizes for each State are determined by the Sampling Branch, Census and Survey Division; Branch Chief is William Iwig, (202)720-3895.

Data collection is carried out by NASS State Statistical Offices; Norman Bennett, Eastern Field Operations Director, (202)720-3638 and Kevin Barnes, Western Field Operations Director (202)720-8220.

The Livestock Branch Chief is Dan Kerestes (202)720-3570. Commodity statisticians within the Livestock Branch are responsible for coordination of sampling, questionnaires, data collection, data processing, State Field Office support, national and regional summaries, analysis, presenting the data to the Agricultural Statistics Board for final estimates, publication, and the Estimation Manual.

January, 2012
Revised April, 2012