

## Detailed Instructions Used to Calculate Class Prices (as of February 2007)

Last Updated: January 23, 2007

### *Commodity prices used for Class 4a and 4b for the current month*

- 1) Obtain prices for grade AA butter and 40 lb. block Cheddar cheese as traded on the Chicago Mercantile Exchange (CME) for the 26<sup>th</sup> of the prior month to the 25<sup>th</sup> of the current month. Butter and cheese both trade daily. Take the simple average of each of the price series.
- 2) Obtain prices for dry whey from Dairy Market News for the 26<sup>th</sup> of the prior month to the 25<sup>th</sup> of the current month. Used the average of the Western dry whey mostly prices; these are printed every Friday in Dairy Market News.
- 3) Obtain the monthly California weighted average price for Grade A and extra grade nonfat dry milk for the 26<sup>th</sup> of the prior month to the 25<sup>th</sup> of the current month, as reported by the Dairy Marketing Branch. No adjustment for dates is necessary for this price; the adjustments have been made by Branch staff. The weighted average of the weekly prices does not necessary equal the monthly weighted average!
- 4) All prices should be rounded to four decimal places.

### *Class 4a component and hundredweight prices*

- 1) Class 4a fat price per pound: Use the butter price obtained above and subtract a f.o.b. California price adjuster of \$0.0168, subtract a manufacturing cost allowance of \$0.1560, and multiply the result by a yield factor of 1.2. Round the result to four decimal places.
- 2) Class 4a solids-not-fat price per pound: Use the nonfat dry milk price obtained above and subtract a manufacturing cost allowance of \$0.160 and then multiply the difference by a yield factor of 1.0. Round the result to four decimal places.
- 3) For any month in which the Secretary of Agriculture implements the collection of charges for the Milk Producers Security Trust Fund, the minimum Class 3 prices shall be increased by:
  - a) \$0.0032 per pound of fat
  - b) \$0.0013 per pound of SNF
- 4) To get a hundredweight price for Class 4a, multiply the fat price by 3.5, multiply the SNF by 8.7 and add the two products. Round the result to two decimal places.

### *Class 4b component and hundredweight prices*

- 1) Class 4b fat price per pound: Set equal to the Class 4a fat price per pound.
- 2) Cheese Hundredweight Price (four steps):
  - a) Use the cheese price obtained above and subtract an f.o.b. California price adjuster of \$0.0252, subtract a Cheddar cheese manufacturing cost allowance of \$0.1780, and multiply the difference by a yield factor of 10.2. *To calculate an accurate hundredweight price, do not round the result!*
  - b) Use the CME butter price obtained from the above description and subtract a manufacturing cost allowance of \$0.1560, subtract a butter adjustment factor of \$0.10, and multiply the difference by a yield factor of 0.27. *To calculate an accurate hundredweight price, do not round the result!*
  - c) Use the dry whey prices obtained above and subtract a manufacturing cost allowance of \$0.267 and multiply the result by a yield factor of 5.8. *To calculate an accurate hundredweight price, do not round the result!*

- d) Sum the cheese contribution (2a), the whey butter contribution (2b) and the dry whey contribution (2c).
- 3) Class 4b solids–not–fat price: Using the hundredweight price from 2d, subtract 3.72 times the Class 4b fat price and then divide the difference by 8.80. Round the result to four decimal places.
- 4) For any month in which the Secretary of Agriculture implements the collection of charges for the Milk Producers Security Trust Fund, the minimum Class 3 prices shall be increased by:
  - a) \$0.0032 per pound of fat
  - b) \$0.0013 per pound of SNF
- 5) To get a hundredweight price for Class 4b, multiply the fat price by 3.5, multiply the SNF by 8.7 and add the two products. Round the result to two decimal places.

*Class 3 component and hundredweight prices*

- 1) Class 3 prices are announced in advance for two months at a time and use two–months of Class 4a component price data. The following schedule should be used to calculate Class 3 prices:
  - a) For February–March Class 3 prices, use the preceding December and January Class 4a component prices
  - b) For April–May Class 3 prices, use the preceding February and March Class 4a component prices
  - c) For June–July Class 3 prices, use the preceding April and May Class 4a component prices
  - d) For August–September Class 3 prices, use the preceding June and July Class 4a component prices
  - e) For October–November Class 3 prices, use the preceding August and September Class 4a component prices
  - f) For December–January Class 3 prices, use the preceding October and November Class 4a component prices
- 2) Class 3 prices also differ by marketing area. Southern California prices are higher than Northern California prices.
- 3) Class 3 fat price per pound — Find the average of the latest two month's Class 4a fat prices (current and last month). To the average Class 4a fat price per pound, add:
  - a) \$0.0370 for the Northern California fat price
  - b) \$0.0393 for the Southern California fat price
  - c) Round the result to four decimal places.
- 4) Class 3 solids–not–fat price per pound — Find the average of the latest two month's Class 4a SNF prices (current and last month). To the average Class 4a SNF price per pound, add \$0.0586 for both marketing areas. Round the result to four decimal places.
- 5) For any month in which the Secretary of Agriculture implements the collection of charges for the Milk Producers Security Trust Fund, the minimum Class 3 prices shall be increased by:
  - a) \$0.0032 per pound of fat
  - b) \$0.0013 per pound of SNF
- 6) To get a hundredweight price for Class 3, multiply the fat price by 3.5, multiply the SNF by 8.7 and add the two products. Round the result to two decimal places.

*Class 2 component and hundredweight prices*

- 1) Class 2 prices are announced in advance for two months at a time and use two–months of Class 4a component price data. The following schedule should be used to calculate Class 3 prices:
  - a) For February–March Class 2 prices, use the preceding December and January Class 4a component prices
  - b) For April–May Class 2 prices, use the preceding February and March Class 4a component prices
  - c) For June–July Class 2 prices, use the preceding April and May Class 4a component prices
  - d) For August–September Class 2 prices, use the preceding June and July Class 4a component prices
  - e) For October–November Class 2 prices, use the preceding August and September Class 4a component prices
  - f) For December–January Class 2 prices, use the preceding October and November Class 4a component prices
- 2) Class 2 prices also differ by marketing area. Southern California prices are higher than Northern California prices.
- 3) Class 2 fat price per pound — Find the average of the latest two month's Class 4a fat price (current and last month). To the average Class 4a fat price per pound, add:
  - a) \$0.0370 for the Northern California fat price
  - b) \$0.0393 for the Southern California fat price
  - c) Round the result to four decimal places.
- 4) Class 2 solids–not–fat price per pound — Find the average of the latest two month's Class 4a SNF (current and last month). To the average Class 4a SNF price per pound, add:
  - a) \$0.0643 for the Northern California SNF price
  - b) \$0.0901 for the Southern California SNF price
  - c) Round the result to four decimal places.
- 5) For any month in which the Secretary of Agriculture implements the collection of charges for the Milk Producers Security Trust Fund, the minimum Class 2 prices shall be increased by:
  - a) \$0.0032 per pound of fat
  - b) \$0.0013 per pound of SNF
- 6) To get a hundredweight price for Class 2, multiply the fat price by 3.5, multiply the SNF by 8.7 and add the two products. Round the result to two decimal places.

*Class 1 component and hundredweight prices*

- 1) The Class 1 price is announced mid–month (around the 10<sup>th</sup>) prior to the month to which the minimum prices apply so that there is about a three–week advanced notice of pricing changes.
- 2) Only a partial month's data is used to calculate Class 1 prices. Thus, the methods for obtaining commodity price data as for other classes of milk do not apply for Class 1.
- 3) Class 1 is the only class that assigns a price to the fluid carrier of milk in addition to a fat price and SNF price.
- 4) Class 1 prices also differ by marketing area. While the fat price and SNF price are identical among the two marketing areas, the Southern California fluid carrier price is higher than the Northern California fluid carrier price.
- 5) Obtain prices for Grade AA butter and 40 lb. block Cheddar cheese as traded on the Chicago Mercantile Exchange for the 26<sup>th</sup> of the second prior month to the 10<sup>th</sup> of the

- prior month. Take the simple average of each of the price series and round to four decimal places.
- 6) Obtain the two most recent weekly price and volume reports for all Grade A and extra grade nonfat powder f.o.b. California manufacturing plants available as of the 10th day of the prior month. The weighted average price should be rounded to four decimal points.
  - 7) Obtain the two most recent weekly price reports for mostly Western dry whey available as of the 10th day of the prior month, as reported by USDA in Dairy Market News. The simple average price should be rounded to four decimal points.
  - 8) Class 1 fat price per pound: Use the CME butter price from this section and subtract a butter adjuster of \$0.118, and multiply the difference by a yield factor of 1.2. Round the result to four decimal places.
  - 9) Commodity Reference Price (CRP) — The CRP is an intermediate pricing step for the Class 1 price. It is calculated on a hundredweight basis and is the higher of:
    - a) The sum of:
      - i) The CME cheese price from this section, multiplied by a Cheddar cheese yield factor 9.8
      - ii) The CME butter price from this section less \$0.10, and multiplied by a whey butter yield factor of 0.27.
      - iii) The Mostly Western dry whey price from this section, multiplied by a dry whey yield factor of 5.8 and subtract a dry whey adjuster of \$0.85
      - iv) Round result to four decimal places; do not round the intermediate steps
    - b) **OR** the sum of:
      - i) The CME butter price from this section multiplied by a butter yield factor of 1.2, and the result multiplied by 3.5.
      - ii) The California weighted average NFDM price from this section, multiplied by a yield factor of 0.99, and the result multiplied by 8.7.
      - iii) Round result to four decimal places; do not round the intermediate steps
  - 10) Class 1 SNF price per pound: Using the CRP, add \$0.147, and subtract 3.5 times the Class 1 fat price per pound, multiply the difference by 0.76, and then divide the product by 8.7. Round the result to four decimal places.
  - 11) Class 1 carrier price per pound: Using the CRP, add \$0.147, and subtract 3.5 times the Class 1 fat price per pound, multiply the difference by 0.24, and then divide the product by 87.8. From the result, subtract \$0.0031 per pound for the Northern California carrier price per pound. No adjustment is necessary for the Southern California carrier price per pound. Round the result to four decimal places.
  - 12) For any month in which the Secretary of Agriculture implements the collection of charges for the Milk Producers Security Trust Fund, the minimum Class 1 prices shall be increased by:
    - a) \$0.0017 per pound of fat
    - b) \$0.0009 per pound of SNF
    - c) \$0.0001 per pound of carrier
  - 13) To get a hundredweight price for Class 1, multiply the fat price by 3.5, multiply the SNF by 8.7, multiply the carrier price by 87.8 and add the three products. Round the result to two decimal places.