



Methodology of Price Impact Estimates of the Whey Price Inversion on Alternatives 1 & 5 & 8

On May 6, 2008, the Department received a request by three members of the Whey Committee for further data and analysis regarding the price inversion between dry whey and whey protein concentrate and the alternatives that are being considered by the Whey Committee. The Department has calculated the estimated impacts to the Class 4b price, the pool price, and the monthly revenue from the pool for the requested analysis.

The Department compared the previous pricing formula that was in place prior to the October 2007 hearing (previous formula) with the proposed alternatives as explained below in Tables 2-5.

Table 1: Contains the monthly average prices for Western Mostly Dry Whey, Central & Western WPC 34, the per pound equivalent of the Central & Western WPC 34 calculated according to Note C of Alternative 8, and the “lower of” value that would be utilized according to Note C of Alternative 8.

Table 2: Uses the previous formula with the “lower of” whey price from Table 1 to isolate only the impact of the inversion on the previous formula.

Table 3: Uses Alternative 1 with the “lower of” whey price from Table 1.

Table 4: Uses Alternative 5 with the “lower of” whey price from Table 1.

Table 5: Uses Alternative 8, which already used the “lower of” whey price from Table 1. Thus, the information in Table 5 is as previously released by the Department.

8a: A snubber as described in note B so that the whey value never drops below zero or rises above \$0.50.

8b: A snubber as described in note B so that the whey value never drops below zero or rises above \$1.00.

8c: A snubber as described in note B so that the whey value never drops below \$0.25 or rises above \$1.25.

Table 6: Provides a summary of Tables 2 – 5 showing only the annual average impacts. This table allows for an easier side-by-side comparison of the requested information.

For convenience, the alternatives used in this analysis are listed below as originally presented by the subcommittees.

Alternative 1:

1. Use Western Dry Whey price mostly midpoint less a make allowance of 31 cents per pound. Multiply the result of the price less the yield by 2.9, which is half the yield (5.8) that was used in the previous formula prior to 12/07.
2. The maximum dry whey price that could be used in this calculation would be \$0.50 per pound, so if the market price went above that level, a value of \$0.50 would be substituted for the whey price in the formula.
3. If the whey price dropped below 31 cents the contribution to the formula would be snubbed at zero so that the whey factor would not be a negative impact on the milk price.

Alternative 5:

The whey factor in the 4b formula would consist of a fixed factor of \$0.18/cwt plus an additional amount equal to the NASS dry whey price minus \$0.36 times 5.8 (yield) times .33 (share rate). The additional amount cannot be a negative number.

Alternative 8:

- The base value used shall be the lower of:
 1. the average of the western mostly quote for dry whey as reported by DMN, or
 2. 38% of the average of the central and west mostly quote for whey protein concentrate 34% as reported by DMN. (Note C)
- Less a make allowance based on the costs of the four smallest plants (as generated by CDFA) making nonfat dry milk plus a fixed factor to account for the added costs of drying whey (Note A), multiplied by a yield of 5.8
- If the result is less than _x_ the whey component portion of the formula will set at _x_ and if the result is more than _z_ the whey component portion of the formula will be set at _z_. (Note B)

NOTES:

Note A: Make allowance example: CDFA reported cost for smaller plants is 20 cents and then set a fixed factor of 8.5 cents to bring the make allowance to 28.5 cents.

Note B: Snubber examples:

Value per cwt for the Class 4b whey component.

(x)	(z)
Bottom	Top
Zero	\$0.50
Zero	\$1.00
\$.25	\$1.25

Note C: The effect of applying the 38% is to restate the dry whey price as if its protein were valued at the protein value of WPC 34. The math here is based on a protein content of 13% in dry whey and 34% in WPC 34. $13/34 = 38$. At 12% protein in dry whey the multiplier would be 35%.