EXHIBIT F

UNITED STATES DISTRICT COURT

FOR THE

DISTRICT OF VERMONT

GROCERY MANUFACTURERS ASSOCIATION, SNACK FOOD ASSOCIATION, INTERNATIONAL DAIRY FOODS ASSOCIATION, and NATIONAL ASSOCIATION OF MANUFACTURERS, Plaintiffs, v. WILLIAM H. SORRELL, in his official capacity as the Attorney General of Vermont; PETER E. SHUMLIN, in his official capacity as Governor of Vermont; TRACY DOLAN, in her official capacity as Commissioner of the Vermont Department of Health; and JAMES B. REARDON, in his official capacity as Commissioner of the Vermont Department of Finance and Management, Defendants.	Case No. 5:14-cv-117

DECLARATION OF DR. ANDREW DYKE

1. I am a partner and senior economist at ECONorthwest, which provides economic, financial analysis, and planning services for a wide variety of private and public sector clients, and has been in operation since 1974. I have worked at ECONorthwest for more than eight years. I have also served as a finance and policy analyst for the State of Oregon and taught economics and statistics courses at the University of North Carolina-Chapel Hill, Portland State University, and Pacific University. I received a Ph.D. in economics from the University of North Carolina-Chapel Hill. I have presented papers at professional proceedings on economics, and I am a member of the American Economic Association. A copy of my CV is attached as Exhibit 1.

2. This declaration is based on my personal knowledge, training in economics, and experience completing relevant project work at ECONorthwest, including research on food labeling costs, market analyses, benefit-cost analysis, and economic forecasting.

3. Vermont's Act 120 requires manufacturers of foods produced with genetic engineering to disclose on the product label that it is "produced with genetic engineering," "partially produced with genetic engineering," or "may be produced with genetic engineering." Act 120 was enacted on May 8, 2014 and requires compliance with this labeling requirement beginning July 1, 2016.

4. I have been asked to explain how complying with Act 120 will affect food manufacturers whose products are sold in Vermont and subject to the provisions of Act 120. Specifically, I will: (A) identify the decisions faced by food manufacturers for each product subject to the provisions of Act 120; and (B) discuss the incremental costs of relabeling such products to comply with the provisions of Act 120.

Act 120 Only Requires a Manufacturer to Incur the Costs Necessary to Implement the Least Expensive Option Available to Ensure Compliance.

5. Manufacturers can comply with Act 120 in a variety of ways. For each product subject to the provisions of Act 120, a manufacturer can relabel, reformulate using other ingredients or ingredients certified as non-GE, or stop distributing the product in Vermont. Each option will impact a manufacturer's operations differently, and each manufacturer will make compliance decisions that best align with the manufacturer's goals, based on an evaluation of these impacts.

6. In some cases, a manufacturer may select a more costly compliance option than available alternatives. For example, a manufacturer could decide to relabel a product for Vermont sales only when relabeling the product nationwide would impose lower costs. However,

Act 120 only compels manufacturers to incur incremental costs equal to the difference between the least costly feasible compliance option and the costs of status quo operations in the absence of Act 120.[1]

7. Similarly, if a manufacturer would have taken the same actions regardless of Act 120, Act 120 does not impose any incremental costs. For example, if the manufacturer was already scheduled for a product reformulation to eliminate genetically engineered ingredients, those costs are not attributable to compliance with Act 120.

8. Manufacturers routinely relabel products for a variety of regulatory and non-regulatory reasons. According to FDA documentation, manufacturers relabel 20-50% of all products in any given year.[2] When this routine relabeling activity coincides with Act 120 implementation and a manufacturer decides to relabel a non-exempt product, the Act will impose minimal incremental costs on manufacturers.

9. In many cases, manufacturers may not be in a position to reformulate their products with non-GE products. However, Act 120 does not require any manufacturer to reformulate to avoid the labeling requirements. If a manufacturer deems reformulation of a product as too costly, the manufacturer can instead relabel the product. The costs associated with reformulation, if incurred, would result from a business decision to reformulate a product rather than to relabel the product. This is a product-by-product decision.

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[1] Of course, manufacturers need not take any action related to existing products that may contain genetically engineered ingredients if they will not be sold in Vermont after July 1, 2016 or if they are exempted by the Act.

[2] Muth, M., Ball, M., Coglaiti, M., and Karns, S. (2012). Model to estimate costs of using labeling as a risk reduction strategy for consumer products regulated by the Food and Drug Administration. Contract No. GS-10F-0097L, Task Order 5. Revised final report: Prepared for U.S. Food and Drug Administration, Center for Food Safety and Applied Nutrition. Research Triangle Park, NC: RTI International. U.S. Food and Drug Administration, Center for Food Safety and Applied Nutrition. Research Triangle Park, NC: RTI International.

10. Over time, manufacturers may revisit compliance decisions in light of changes in production or distribution costs, availability of ingredients (e.g., increased availability of non-genetically engineered ingredients), or other factors. However, Act 120 does not require manufacturers to revisit the initial compliance decisions and therefore imposes only one-time relabeling costs

Direct Incremental Costs Associated with Relabeling are Relatively Small.

11. Identifying the products that must be relabled is not a difficult task. The list of genetically engineered plants is not large. The FDA publishes a database that identifies all instances in which a producer has completed a consultation with the FDA on commercializing genetically engineered plants. The current list includes only 18 food types.[3] While the consultation process is voluntary, in practice all GE food "currently on the US market has undergone what is called a FDA 'consultation.'"[4] The FDA requires producers to receive approval before marketing genetically engineered animals, and has not yet issued final approval for any GE food animals.[5]

12. Because the list of food products is relatively small, determining whether a product's ingredients could include genetically engineered material requires only identifying whether or not each ingredient is potentially derived from a genetically engineered plant approved by the FDA. Manufacturers would not need to determine the status of all ingredients

[3] *See* http://www.accessdata.fda.gov/scripts/fdcc/index.cfm?set=Biocon (accessed November 3, 2014). These are limited to corn, soybean, cotton, flax, canola, rice, sugar beet, potato, starch potato, tomato, radicchio, squash, papaya, plum, cantaloupe, alfalfa, and wheat. The FDA has also consulted with producers of GE creeping bentgrass, which may be used as animal feed, but is not intended for use in human food.

[4] *See* Wozniak, C. and McHughen, A. (2012), Regulation of Agricultural Biotechnology: The United States and Canada.

[5] http://www.fda.gov/AnimalVeterinary/DevelopmentApprovalProcess/GeneticEngineering/GeneticallyEngineeredAnimals/ucm113605.htm (accessed November 3, 2014).

as long as the manufacturer has determined that one or more of these foods constituted more than .9% of the product by weight.

13. The FDA maintains a labeling cost model that calculates potential costs of labeling changes to retail consumer products subject to FDA oversight.[6] The model calculates per-product relabeling costs that include labor and materials associated with administrative activities (e.g., legal, marketing approval), graphic design, prepress and printing, and recordkeeping. The model also accounts for costs associated with the recycling or disposal of unused label inventory, per-product costs for analytical testing and market testing and the use of an outside printer. The model directly addresses the differential costs associated with compliance periods as short as three months to account for possible overtime and rush charges for completing labeling activities quickly and the cost of applying stickers to existing labels when there is insufficient time to print new labels.

14. The FDA uses the labeling cost model to estimate the incremental labeling costs attributable to proposed regulatory changes. I have relied upon published results from these analyses to quantify the incremental labeling costs potentially attributable to Act 120. The FDA has estimated that given a one-year compliance period, the one-time per-stock keeping unit (SKU) cost of compliance with a food safety labeling regulation is $1,966 in 2014 dollars.[7]

15. I have read the declaration of Thomas Dempsey, and understand from his declaration that one member of the Grocery Manufacturers Association has stated that "plate charges" associated with relabeling would cost $4,000 per SKU, and suggests that the total

[6] The model, based in part on discussions with trade associations and manufacturers of products regulated by the FDA, was updated in 2010.

[7] The published amounts were presented in 1998 dollars. I converted these to 2014 dollars using Consumer Price Index data from the Bureau of Labor Statistics (http://www.bls.gov/cpi/data.htm, accessed November 3, 2014).

relabeling costs would be higher. While the relevant costs will vary from product to product, the stated amount is more than twice the average per-SKU relabeling cost estimated by the FDA.

16. To place the estimated one-time $1,966 per-SKU cost in context, I computed this one-time relabeling cost as a percentage of annual per-SKU sales using data from the Food Marketing Institute (FMI), United States Census Bureau County Business Patterns (CBP), and Federal Trade Commission (FTC). To do this, I first determined the weekly and annual per-SKU sales at the median retail grocery store in the Northeast and nationally. I then determined the number of retail grocery stores in each of Vermont; the New Hampshire, Maine, and Vermont region; New England; and the United States, as well as the percentage of these stores that carry the average SKU in order to calculate the average annual sales volume per SKU for grocery stores in each of the geographic areas. Based on this analysis, I calculated the percentage of the average annual sales for each SKU represented by the one-time relabeling cost. This information and the calculations I have made are discussed in paragraphs 17 through 20.

17. FMI publishes an annual report that includes detailed tabulations of information about food retailers in the United States, including information about weekly sales. A recent FMI publication indicates that the median retail grocery store's weekly sales per SKU was $9.02 in 2014 dollars nationally, and $9.72 in the Northeast.[8] This translates into annual sales per SKU for each retail grocery store of $468.92 nationally and $505.21 in the Northeast.

18. CBP data provides annually updated data series regarding economic activity by industry.[9] The most recent CBP data indicates that Vermont has 310 grocery stores (the category includes supermarkets, other grocery stores, and convenience stores); the region comprised of

[8] Food Marketing Institute (2012). The Food Retailing Industry Speaks. Food Marketing Institute, Arlington, VA.

[9] *See* http://www.census.gov/econ/cbp (accessed November 3, 2014).

New Hampshire, Maine, and Vermont (NH-ME-VT, the region mentioned in the declaration of Richard Michaud) has 1,342 grocery stores; New England has 5,569 grocery stores; and the United States as a whole has 91,530 grocery stores.[10]

19. An FTC analysis of grocery store scanner data indicates that the average food product, based on SKU, is sold at 56.2% of grocery stores.[11] Using this percentage, the average food product is available in 174 grocery stores in Vermont; 753 grocery stores in NH-ME-VT; 3,127 stores in New England; and 51,397 stores in the United States.

20. Using the computational method described in paragraph 16, the $1,966 per-SKU one-time labeling cost represents only 2.24% of average per-SKU annual sales in Vermont; 0.516% of average per-SKU annual sales in NH-ME-VT; 0.12% of average per-SKU annual sales in New England; and 0.01% of average per-SKU annual sales in the United States. These calculations indicate that the relabeling cost represents a minimal, one-time, incremental cost for the average SKU distributed in multiple states.

I swear under penalty of perjury that the foregoing statements made by me are true and correct to the best of my knowledge.

Andrew Dyke

Dated: November 14, 2014

[10] Vermont's grocery stores represent 0.3% of all grocery stores in the United States.

[11] I calculated the average availability using a weighted average of the mid-points of the categories in the leftmost column and the category averages reported in the rightmost column of Table 1 in Tenn, S., and Yun, J (2007). Biases in Demand Analysis Due to Variation in Retail Distribution. Working Paper No. 287. Bureau of Economics, Federal Trade Commission.