WHY RFS REFORM IS NEEDED NOW

The following is partially based on two recent FarmEcon LLC studies:

1. “Food Costs are Eating American Family Budgets”

Both of these studies were performed as a public service. No outside funding was requested, or received. The contents of the studies reflect the expert opinion of Dr. Thomas E. Elam. Both studies are available on the home page of FarmEcon.com
WHY RFS REFORM IS NEEDED NOW

FACT: Feedgrain Availability For Uses Other Than Ethanol Has Declined Dramatically Since 2005

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- **Ethanol Plant**
  - Total Corn Use: 38% Ethanol
  - 28% CO\textsuperscript{2} Waste
  - 34% DDG

<table>
<thead>
<tr>
<th>Year</th>
<th>Million Metric Tons</th>
<th>Total Feedgrain Production + Inventory</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005/2006</td>
<td>390</td>
<td></td>
</tr>
<tr>
<td>2006/2007</td>
<td>380</td>
<td></td>
</tr>
<tr>
<td>2007/2008</td>
<td>370</td>
<td></td>
</tr>
<tr>
<td>2008/2009</td>
<td>360</td>
<td></td>
</tr>
<tr>
<td>2009/2010</td>
<td>350</td>
<td></td>
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<tr>
<td>2010/2011</td>
<td>340</td>
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<td>2011/2012</td>
<td>330</td>
<td></td>
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<tr>
<td>2012/2013</td>
<td>320</td>
<td></td>
</tr>
<tr>
<td>Forecast</td>
<td>310</td>
<td></td>
</tr>
</tbody>
</table>

Sept. 1 - Aug. 31 Marketing Year

- **Beginning Inventory**
- **Feedgrains Available After Ethanol Use**
- **DDG Production**
- **Net Corn Used for Ethanol Production**
COST TO THE POULTRY INDUSTRY

- 8 major poultry company bankruptcies
- 2012: feed cost increase versus 2005
  - Broilers: $8.8 billion
  - Turkeys: $1.9 billion
  - Total $10.7 billion
  - Total food system: $71+ billion (increased ethanol production was worth only $24.7 billion)
- 2005-12 chicken/turkey feed cost increase - $42 B
- 2012 lost production opportunities
  - About 8 billion pounds less poultry meat (~$8 billion)
  - Close to $500 million in poultry farmer-grower income
  - Fewer jobs, less income
WHY RFS REFORM IS NEEDED NOW

FACT: Reduced Feedgrain Availability For Food Use Has Increased Prices and Costs for Major Food Commodities

Corn Prices, Other Farm Commodity Prices, Amounts Used for Food Production, and Commodity Costs

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Corn ($/Bu.)</th>
<th>DDGS ($/Bu.)</th>
<th>Sorghum ($/Bu.)</th>
<th>Barley ($/Bu.)</th>
<th>Oats ($/Bu.)</th>
<th>Wheat ($/Bu.)</th>
<th>Soybean Oil ($/Lb)</th>
<th>Soybean Meal ($/Ton)</th>
<th>Hay ($/Ton)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005 Price</td>
<td>$2.00</td>
<td>$1.88</td>
<td>$1.86</td>
<td>$2.63</td>
<td>$1.63</td>
<td>$3.42</td>
<td>$0.23</td>
<td>$174.00</td>
<td>$115.00</td>
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<tr>
<td>2012 Price</td>
<td>$7.40</td>
<td>$6.67</td>
<td>$7.10</td>
<td>$6.45</td>
<td>$3.90</td>
<td>$8.00</td>
<td>$0.51</td>
<td>$455.00</td>
<td>$260.00</td>
</tr>
<tr>
<td>2012 Domestic Consumption</td>
<td>5,517</td>
<td>1,171</td>
<td>155</td>
<td>210</td>
<td>161</td>
<td>1,023</td>
<td>13,100</td>
<td>29.4</td>
<td>120</td>
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<tr>
<td>2005-2012 Cost Impact $B</td>
<td>$29.8</td>
<td>$5.6</td>
<td>$0.8</td>
<td>$0.8</td>
<td>$0.4</td>
<td>$4.7</td>
<td>$3.6</td>
<td>$8.3</td>
<td>$17.4</td>
</tr>
<tr>
<td>2005-2012 Total Cost Impact $B</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$71.3</td>
</tr>
</tbody>
</table>

$71.3 billion is almost half of the 2012 gap in food cost increase relative to trend. Increased farm commodity costs are a major cause of post-2005 food cost increases. For every $1 of added ethanol production, food production costs increased $2.89.
FACT: Post-RFS poultry prices have increased due to higher costs. Prices are from USDA and the Consumer Price Index

- 2005-2012 increase in wholesale price/pound
  - Broilers: $0.68 in 2005, $0.91 in December 2012
  - Turkeys: $0.79 in 2005, $1.20 early 2012

- 2005-2012 increase in retail price/pound
  - Broilers: $1.74 in 2005, $1.97 in December 2012
  - Turkeys: $1.07 in 2005, $1.80 in early 2012
WHY RFS REFORM IS NEEDED NOW

**FACT:** Post-RFS Per Capita Food Consumption is Falling, and Far Short of Potential Demand

U.S. Per Capita Meat Consumption

- **Actual Total Per Capita Meat and Poultry Consumption (2012-13 USDA Projections)**
- **Consumer Spending-Based Potential Total Meat and Poultry Consumption**
- **Real Total Personal Consumption Spending/Person (2012-2013 Projected)**

Consumption losses are cost/price-driven
INEVITABLE RESULT: HIGHER PRICES

**FACT:** Post-RFS consumer prices for meat and poultry have increased, long term trend was declining.

![Graph showing the increase in meat and poultry prices as a percentage of all items less food from 1950 to 2010. The actual prices are shown in blue, and the predicted prices are shown in red. The graph indicates a 10.8 point increase since 2005.](image-url)
WHY RFS REFORM IS NEEDED NOW

**FACT:** U.S. Food Costs are Highly Correlated with Long Term Average Inflation-Corrected Corn Prices.
WHY RFS REFORM IS NEEDED NOW

- The RFS has increased much faster than corn production
- No 2013 waiver: EPA is indifferent to RFS side effects
- The RFS has helped encourage corn-based ethanol production, and thus:
  - Artificially inflated farm commodity prices
  - Reduced poultry and total food production below potential
  - Caused poultry and overall food price increases well above the general inflation rate
  - Increased total food production costs more than twice the value of ethanol created
This problem was created by law and regulation

The current law is fundamentally flawed

- Ethanol blending mandates increased much faster than grain production capacity
- EPA has free rein to pick “winners” and “losers” with no Congressional oversight

The current law needs to be reformed to:

- Fairly balance needs of both the food and fuel sectors
- Explicitly recognize inherent limitations of grain production
- Recognize major issues with other biofuels, including cellulosic ethanol
- Give Congress oversight over EPA’s RFS decisions

Or, the RFS needs to be abandoned
WHY RFS REFORM IS NEEDED NOW

FACT: We are looking at the 4th successive year of significant food production issues.
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