# Agricultural Commodity Outlook 

Gerald A. Bange
Chairperson
World Agricultural Outlook Board
Office of the Chief Economist
U.S. Department of Agriculture

Michigan Farm Bureau
Washington, D.C.
March 13, 2008
http://www.usda.gov/oce/speeches/index.htm

## Special Note

U.S. Supply and Demand Projections for 2008/ 09 and Beyond in this Presentation are from USDA's 2008 Outlook Forum and from USDA Agricultural Projections to 2017Provisions of the Energy I ndependence and Security Act of 2007 are not Fully Reflected in USDA's projections to 2017
$\square$ Key Upcoming USDA Reports:

- NASS Prospective Plantings Report -- March 31,2008
- World Agricultural Supply and Demand Estimates Report -May 9, 2008
- NASS Acreage Report -- J une 30, 2008


## U.S. Wheat Supply and Demand

|  | 2006/07 estimate | 2007/08 <br> forecast | 2008/09 <br> forecast | Change from 2007/08 |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Percent |
| Planted area (million acres) | 57.3 | 60.4 | 64.0 | 5.9 |
| Harvested area (million acres) | 46.8 | 51.0 | 54.4 | 6.6 |
| Yield (bushels per acre) | 38.7 | 40.5 | 42.8 | 5.7 |
| Million bushels |  |  |  |  |
| Beginning stocks | 571 | 456 | 272 | -40.4 |
| Production | 1,812 | 2,067 | 2,330 | 12.7 |
| Imports | 122 | 90 | 100 | 11.1 |
| Total supply | 2,505 | 2,613 | 2,702 | 3.4 |
| Food, seed, and industrial use | 1,015 | 1,036 | 1,039 | 0.3 |
| Feed and residual | 125 | 110 | 175 | 59.1 |
| Domestic use | 1,140 | 1,146 | 1,214 | 5.9 |
| Exports | 909 | 1,225 | 950 | -22.4 |
| Total use | 2,049 | 2,371 | 2,164 | -8.7 |
| Ending stocks | 456 | 242 | 538 | 122.4 |
| Percent |  |  |  |  |
| Stocks to use ratio | 22.3 | 10.2 | 24.9 |  |
| Dollars per bushel |  |  |  |  |
| Average market price | 4.26 | 6.65 | 7.00 | 5.3 |

## U.S. Corn Supply and Demand

|  | 2006/07 <br> estimate | $2007 / 08$ <br> forecast | 2008/09 <br> forecast | Change from 2007/08 |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Percent |
| Planted area (million acres) | 78.3 | 93.6 | 90.0 | -3.8 |
| Harvested area (million acres) | 70.6 | 86.5 | 82.7 | -4.4 |
| Yield (bushels per acre) | 149.1 | 151.1 | 154.9 | 2.5 |
| Million bushels |  |  |  |  |
| Beginning stocks | 1,967 | 1,304 | 1,438 | 10.3 |
| Production | 10,535 | 13,074 | 12,810 | -2.0 |
| Total supply | 12,514 | 14,393 | 14,263 | -0.9 |
| Feed and residual | 5,598 | 5,950 | 5,400 | -9.2 |
| Food, seed, and industrial | 3,488 | 4,555 | 5,470 | 20.1 |
| Ethanol | 2,117 | 3,200 | 4,100 | 28.1 |
| Domestic use | 9,086 | 10,505 | 10,870 | 3.5 |
| Exports | 2,125 | 2,450 | 2,150 | -12.2 |
| Total use | 11,210 | 12,955 | 13,020 | 0.5 |
| Ending stocks | 1,304 | 1,438 | 1,243 | -13.5 |
| Percent |  |  |  |  |
| Stocks/use | 11.6 | 11.1 | 9.5 |  |
| Dollars per bushel |  |  |  |  |
| Average market price | 3.04 | 4.00 | 4.60 | 3.0 |

## U.S. Soybean Supply and Demand

|  | 2006/07 <br> estimate | 2007/08 <br> forecast | 2008/09 <br> forecast | Change from 2007/08 |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Percent |
| Planted area (million acres) | 75.5 | 63.6 | 71.0 | 11.6 |
| Harvested area (million acres) | 74.6 | 62.8 | 70.1 | 11.6 |
| Yield (bushels per acre) | 42.7 | 41.2 | 42.1 | 2.3 |
| Million bushels |  |  |  |  |
| Beginning stocks | 449 | 574 | 160 | -72.1 |
| Production | 3,188 | 2,585 | 2,950 | 14.1 |
| Imports | 9.0 | 6.0 | 6.0 | 0.0 |
| Total Supply | 3,647 | 3,165 | 3,116 | -1.5 |
| Crush | 1,806 | 1,835 | 1,860 | 1.4 |
| Seed and Residual | 148 | 165 | 177 | 7.1 |
| Domestic use | 1,955 | 2,000 | 2,037 | 1.8 |
| Exports | 1,118 | 1,025 | 910 | -11.2 |
| Total Use | 3,073 | 3,025 | 2,947 | -2.6 |
| Ending stocks | 574 | 140 | 169 | 20.9 |
| Percent |  |  |  |  |
| Stocks/use ratio | 18.7 | 4.6 | 5.7 |  |
| Dollars per bushel |  |  |  |  |
| Average market price | 6.43 | 10.40 | 11.50 | 10.6 |

## Major Crop and CRP Acreage

 (USDA Outlook Forum - Feb. 2008)|  | $2007 / 08$ | 2008/09 | Change |
| :--- | ---: | ---: | ---: |
|  | Million acres |  |  |
| Corn | 93.6 | 90.0 | -3.6 |
| Soybeans | 63.6 | 71.0 | +7.4 |
| Wheat | 60.4 | 64.0 | +3.6 |
| All Cotton | 10.8 | 9.5 | -1.3 |
| Rice | 2.76 | 2.70 | -0.1 |
| 5-crop total | 231.2 | 237.2 | +6.0 |
| CRP acres | 36.8 | 34.8 | -2.0 |

## U.S. Wheat Planted Area Trend



Note: 2008 planted area forecast from USDA's Grains \& Oilseeds Outlook, Agricultural Outlook Forum, Washington, D.C., February $22,2008$. Projections for 2009-2017 are from USDA Agricultural Projections to 2017, February 2008.

## U.S. Corn Planted Area Trend



Note: 2008 planted area forecast from USDA's Grains \& Oilseeds Outlook, Agricultural Outlook Forum, Washington, D.C., February $22,2008$. Projections for 2009-2017 are from USDA Agricultural Projections to 2017, February 2008.

## U.S. Soybean Planted Area Trend

Million Acres


## Renewable Fuel Standards (RFS)

## Corn starch based ethanol, 2006 through 2022



## U.S. Ethanol Production Capacity <br> Annual Capacity by Month



## U.S. Corn Used for Ethanol 1995/96 through 2015/16*



Note: 2007/08 is projected based on the World Agricultural Supply and Demand Estimates, February 8, 2008. 2008/09 is projected based on USDA's Grains \& Oilseeds Outlook, Agricultural Outlook Forum, Washington, D.C., February 22, 2008. *Projection for $2009 / 10$ based on RFS

## Daily Cash Market Corn Prices

2004/05 through 2007/08 to date


## U.S. Domestic Corn Use 1995/96 through 2008/09F

Bil. bushels


## China Corn Production and Consumption 1995/96 through 2007/08F



Note: $2007 / 08$ production and consumption are projected based on the World Agricultural Supply and Demand Estimates, January 11, 2008.

## China Corn Exports

1995/96 through 2007/08F


Note: 2007/08 production and consumption are projected based on the World Agricultural Supply and Demand Estimates, January 11, 2008.

## U.S. Soybean Oil Supply and Demand

|  | 2006/07 <br> estimate | 2007/08 <br> forecast | 2008/09 forecast | Change from 2008/09 |
| :---: | :---: | :---: | :---: | :---: |
|  | Million pounds |  |  | Percent |
| Beginning stocks | 3,010 | 2,904 | 2,502 | -13.9 |
| Production | 20,487 | 21,195 | 21,205 | 0.0 |
| Imports | 37 | 37 | 50 | 33.4 |
| Total supply | 23,535 | 24,137 | 23,757 | -1.6 |
| Domestic | 18,743 | 18,900 | 19,750 | 4.5 |
| Methyl ester | 2,796 | 2,800 | 3,500 | 25.0 |
| Exports | 1,888 | 2,400 | 1,850 | -22.9 |
| Total use | 20,630 | 21,300 | 21,600 | 1.4 |
| Ending stocks | 2,904 | 2,837 | 2,157 | -24.0 |
| Cents per pound |  |  |  |  |
| Average market price | 31.02 | 55.00 | 49.50 | -10.0 |

## U.S. Biodiesel Mandate . . . (2007 Energy Act)



## Daily Cash Market Soybean Prices

## 2004/05 through 2007/08 to date



## Soybean Oil Futures Prices

## December 2008 Contract



Note: Chicago Board of Trade daily settlement prices.

## Biodiesel Margin



## China Soybean Import Dependence Expected to Increase in the Next 10 Years



## Soybean Production Trends



## New-crop Soybean/ Corn Price Ratios

2007-crop and 2008-crop through March 12, 2008


[^0]
## U.S. Ammonia Prices, weekly



[^1]
## Projected Growth Rates

|  | 2008 | 2009 | 2010 | Average |
| :--- | :---: | :---: | :---: | :---: |
| U.S. | 1.8 | 2.7 | 3.5 | 2.7 |
| EU-27 | 2.1 | 2.4 | 2.3 | 2.3 |
| Japan | 1.5 | 2.0 | 2.1 | 1.9 |
| China | 11.4 | 9.2 | 8.7 | 9.8 |
| India | 7.8 | 7.7 | 7.6 | 7.7 |
| World | 3.4 | 3.6 | 3.7 | 3.6 |

Source: Oxford Economics

## Nitrogen Production and I mports



## U.S. Meat Production and Prices

| Item | 2006 | 2007 | Change from 2006 | 2008 | Change from 2007 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Production | Billion pounds | Billion pounds | Percent | Billion pounds | Percent |
| Beef | 26.15 | 26.42 | 1.0 | 26.44 | 0.1 |
| Pork | 21.06 | 21.94 | 4.2 | 23.14 | 5.4 |
| Broilers | 35.50 | 36.13 | 1.8 | 37.13 | 2.8 |
| Turkey | 5.68 | 5.96 | 4.9 | 6.14 | 3.0 |
| Total meat | 89.23 | 91.27 | 2.3 | 93.67 | 2.6 |
| Prices | Dollars/Cwt |  |  |  |  |
| Steers | 85.41 | 91.82 | 6.41 | 90.88 | -0.94 |
| Hogs | 47.26 | 47.09 | -0.17 | 42.38 | -4.71 |
| Cents/pound |  |  |  |  |  |
| Broilers | 64.4 | 76.4 | 12.1 | 76.4 | 0.0 |
| Turkey | 77.0 | 82.1 | 5.1 | 81.1 | -1.0 |

## U.S. Soybean Meal Supply and Demand

|  | $\begin{aligned} & \hline \text { 2006/07 } \\ & \text { estimate } \end{aligned}$ | 2007/08 forecast | $\begin{aligned} & \text { 2008/09 } \\ & \text { forecast } \end{aligned}$ | Change from 2008/09 |
| :---: | :---: | :---: | :---: | :---: |
|  | Thousand short tons |  |  | Percent |
| Beginning stocks | 314 | 351 | 300 | -14.5 |
| Production | 43,027 | 43,784 | 44,235 | 1.0 |
| Imports | 156 | 165 | 165 | 0.0 |
| Total supply | 43,497 | 44,300 | 44,700 | 0.9 |
| Domestic | 34,360 | 35,300 | 35,600 | 0.9 |
| Exports | 8,786 | 8,700 | 8,800 | 1.2 |
| Total use | 43,146 | 44,000 | 44,400 | 0.9 |
| Ending stocks | 351 | 300 | 300 | 0.0 |
|  |  | rs per shor |  |  |
| Average market price | 205.44 | 335.00 | 300.00 | -10.4 |

## Hog-Corn Price Ratio



## U.S. Milk Supply and Demand

| Item | Change from |  |  |  | Change from2007 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2006 | 2007 | 2006 | 2008 |  |
|  | Billion pounds | Billion pounds | Percent | Billion pounds | Percent |
| Production | 181.8 | 185.6 | 2.1 | 190.7 | 2.7 |
| Commercial use | 184.1 | 188.3 | 2.2 | 194.0 | 3.1 |
| CCC net removals 1/ | Million pounds | Million pounds | Percent | Million pounds | Percent |
| Butter | 0 | 0 |  | 0 |  |
| Cheese | 0 | 0 |  | 0 |  |
| Nonfat dry milk | 64 | 0 |  | 0 |  |
| Dry whole milk | 0 | 0 |  | 0 |  |
| Average market price 2/ |  |  | Dollars/Cw |  |  |
| Class III | 11.89 | 18.04 | 6.15 | 16.45 | -1.59 |
| Class IV | 11.06 | 18.36 | 7.30 | 15.30 | -3.06 |
| All milk | 12.90 | 19.13 | 6.23 | 17.60 | -1.53 |

[^2]
## Milk-Feed Price Ratio


*Based on NASS Prices Received

## Cash Farm I ncome and Government Payments



Source: Economic Research Service, USDA

## Consumer Prices and Prices Received by Farmers



Sources: U.S. Bureau of Labor Statistics, National Agricultural Statistics Service

## U.S. Agricultural Exports and I mports

Billion


## Adjustments to Outlook Stemming From Provisions of 2007 Energy Act

$\square$ Corn, Soybean, and Soybean Oil Prices would be Higher
$\square$ Overall Acres would be up with a Greater Proportion Planted to Corn and Soybeans
$\square$ Given Higher prices, Exports and Feed Use of Feed Grains would be Lower

- Soybean Meal would be more Plentiful
- Further Adjustments in the Livestock Sector would be Required


## END

## Michigan Farm Bureau


[^0]:    Note: Chicago Board of Trade daily settlement prices.

[^1]:    Source: Green Markets Fertilizer Market Intelligence Weekly

[^2]:    1/ Includes products exported under the dairy export incentive program
    2/Prices are mid-point of published forecasts; milk of average fat test.

