## The University of Georgia



## "Markets in Transition" East District Agent Update February 16, 2007

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## **Ethanol and the Corn Market**

		′ Exp ice	Ехр	Yield	Income	Variable Cost	Return Over VC
Corn, Conv Variety, Dryland	\$3.90		85		\$332	\$200	\$132
Cotton BT/RR, Dryland	\$0.60		700		\$420	\$380	\$40
Peanut, Dryland	\$415.00		2700		\$560	\$429	\$131
Soybean RR, Dryland	\$6.75		30		\$203	\$178	\$25
Wheat/Cotton	\$4.00	\$0.60	55	575	\$565	\$530	\$35
Wheat/Soybean	\$4.00	\$6.75	55	24	\$382	\$328	\$54

	2007 Exp Price		Exp Yield		Income	Variable Cost	Return Over VC
Corn BT Variety, Irrigated	\$3.90		185		\$722	\$445	\$277
Cotton BR/RR, Irrigated	\$0.60		1100		\$660	\$482	\$178
Peanut, Irrigated	\$415.00		3700		\$768	\$529	\$239
Soybean RR, Irrigated	\$6.75		50		\$338	\$225	\$113
Wheat/Cotton Irrigated	\$4.00	\$0.60	65	850	\$770	\$692	\$78
Wheat/Soybean Irrigated	\$4.00	\$6.75	65	40	\$530	\$435	\$95

#### Comparison of 2007 Irrigated Crops Costs and Returns





#### **U.S. CORN SITUATION**

Production Use End Stocks



# **U.S. CORN ACREAGE**

Planted Harvested



## **U.S. Corn Yields**



# **U.S. Corn Usage**

■ Feed Use ■ F. S.& I. ■ Export



### **Corn Used For Ethanol**





## **Economics of Ethanol**

### One bushel of corn yields 2.7 gal ethanol

**Ethanol Price** Ethanol Income **DDGS** Income **Carbon Dioxide Income** Corn Cost **Process Cost per bushel Net Income per bushel Net Income per gallon** 

\$2.06/gal \$5.64 \$1.13 **\$0.13** \$4.04 \$1.89 \$0.90 **\$0.33** 

## **Ethanol Breakeven Matrix**

Corn	Ethanol Price					
<u>Price</u>	<u>\$1.50</u>	<u>\$1.75</u>	<u>\$2.00</u>			
\$2.50	\$0.13	\$0.38	\$0.63			
\$3.00	-\$0.05	\$0.20	\$0.45			
\$3.50	-\$0.23	\$0.02	\$0.27			
\$4.00	-\$0.41	-\$0.16	\$0.09			
\$4.25	-\$0.50	-\$0.25	\$0.00			



#### **Ethanol Futures vs Spot Regular Gas**







#### **U.S. Corn End Stocks**



# **U.S. CORN ACREAGE**



# **U.S. CORN ACREAGE**

Planted Harvested

160 bu/ac



## Where Can We Get 8 Mil. Acres?

Soybeans = 7.5

**Cotton = 2.5** 

Wheat = 0.5

Peanuts =0.25

Total = 10.75

# **Georgia Corn Situation**

- 2006 Consumption 212.7 mil bu
- 2006 Production
- "Imports"

212.7 mil bu 26.2 mil bu 186.5 mil bu

100 mil gal Ethanol Plant = @37 mil bu
Will produce about 315, 000 tons DDGS
Would need @ 5% of total poultry ration to use it all.



## **U.S.SOYBEAN ACREAGE**

Planted Harvested



### **U.S. SOYBEAN SITUATION**

Production Use End Stocks



## **Economics of Biodiesel**

It takes 7 <sup>1</sup>/<sub>2</sub> pounds of oil to make one gallon of biodiesel.

Biodiesel Price\$2Glycerin Income\$0Oil cost @ \$.31/lb\$2Process Cost\$0Total Cost\$3Net Income per gallon-\$0

\$2.70/gal \$0.13 \$2.38 \$0.62 \$3.00 -\$0.17

## **Biodiesel Breakeven Matrix**



#### Comparison of Biodiesel & Diesel Prices Jan 4, 2006 to Date



### **December Cotton Futures**



## **U.S. COTTON ACREAGE**

Planted Acres Harvested Acres



### **U.S. COTTON SITUATION**

Production Use End Stocks





#### **U.S WHEAT SITUATION**

Production Use End Stocks







"The Cure for High Prices Is High Prices!"

# How so?

- Some buyers will reduce use
- Some buyers will not buy at high prices
- Substitutes will be used more freely <u>Result = demand contracts</u>
- Some sellers will seek to produce more
- Some sellers will willingly sell all they have
- Some sellers will undercut the market
- More substitutes will be produced <u>Result = Supply expands</u>

## **The Corollary is also true:**

### "The Cure for Low Prices is Low Prices!"

The Laws of Supply and Demand have not been repealed – but it often takes time for enforcement to become apparent!



## **Renewable Fuels & US Policy**

• Ethanol and renewable fuels were in the spotlight of State of the Union message and the Democratic response

#### • President Bush.....

"We have made a lot of progress, thanks to good policies in Washington and the strong response of the market. .....Let us build on the work we have done and reduce gasoline usage in the United States by 20 percent in the next ten years

by setting a mandatory Fuels Standard to require 35 billion gallons of renewable and alternative fuels in 2017 -- this is nearly five times the current target. "

#### • Senator Webb....

"We are looking for affirmative solutions that will strengthen our nation by freeing us from our dependence on foreign oil, and spurring a wave of entrepreneurial growth in the form of alternate energy programs. We look forward to working with the President and his party to bring about these changes."