Global Wheat Market Outlook

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2012 Global Droughts/Floods - Just A Starting Point!



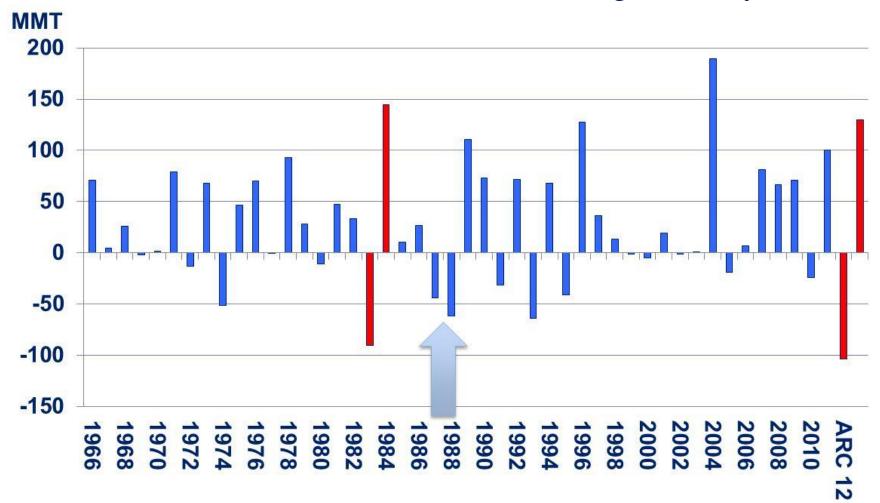
- Central U.S. drought the worst since 1956 over 50 years ago. Since May WASDE, some 100 MMTs of corn and 9 MMTs of soy has been lost.
- The loss of 32-34 MMTs of soy in 2 Hemisphere's (2012) set the stage for a dramatic demand rationing rally in world oilseed prices that peaked in September.
- Russian crop losses amount to 27-29 MMTs with wheat production to be below the 2010 export ban level at 38 MMTs.
- For corn and soybeans, this is a global supply bull market requiring demand rationing.
- The wheat market is in transition, with tight exporter stocks pushing prices higher.
- Our fear is that extreme world weather conditions will persist in '13!



Change in Global Grain Crops Record Decline from Prior Year!



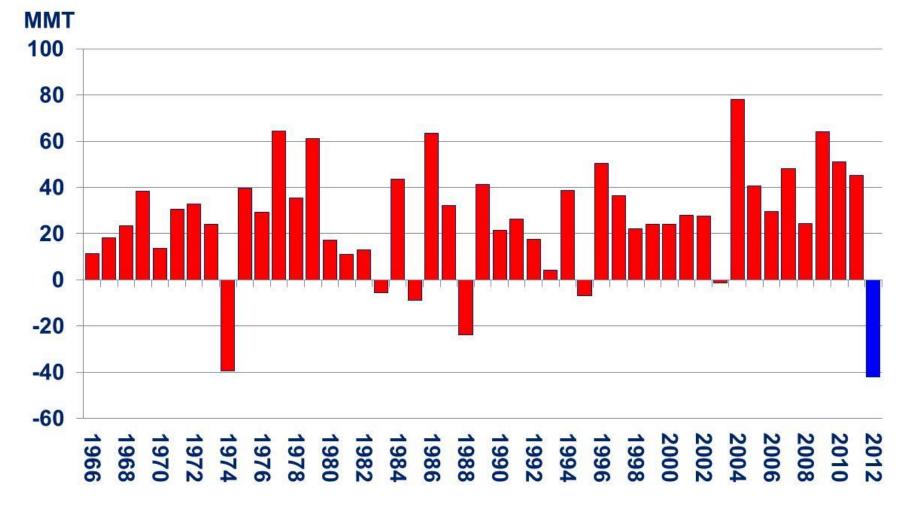
If There is "Normal" Global Weather, Big Recovery in 2013





2012/13 World Grain Stocks Drop By a Record 41 MMTs!

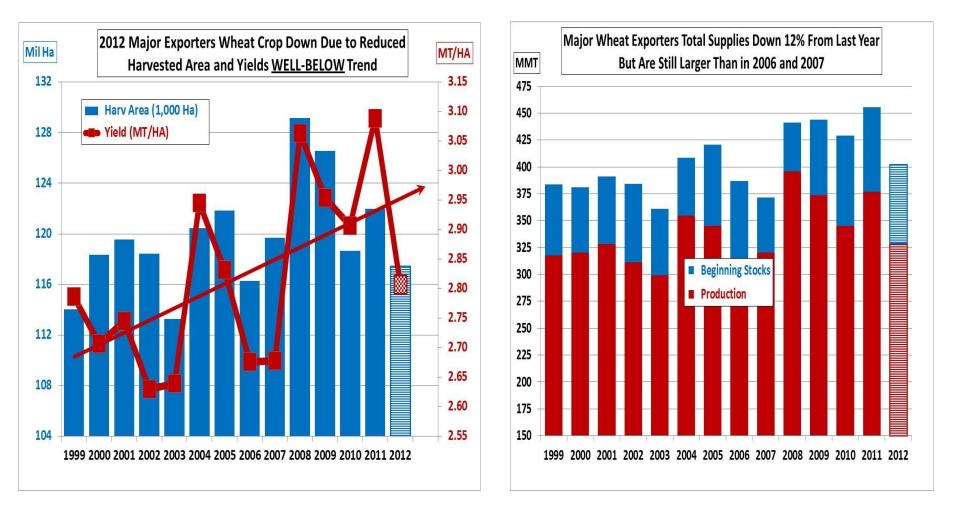






Big Drop in Production For the World's Major Wheat Exporters

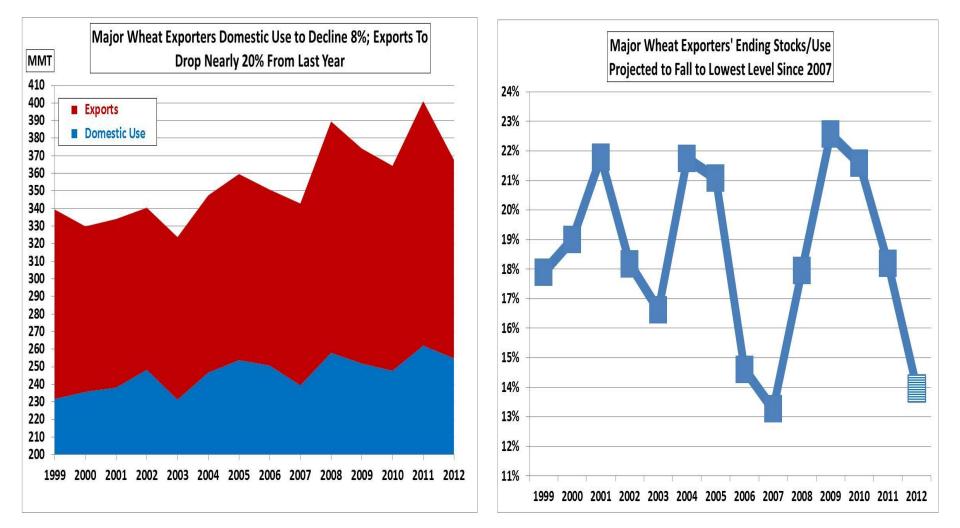






Even With Big Drop in Domestic Use and Exports, Major Wheat Exporters Stocks Fall Sharply

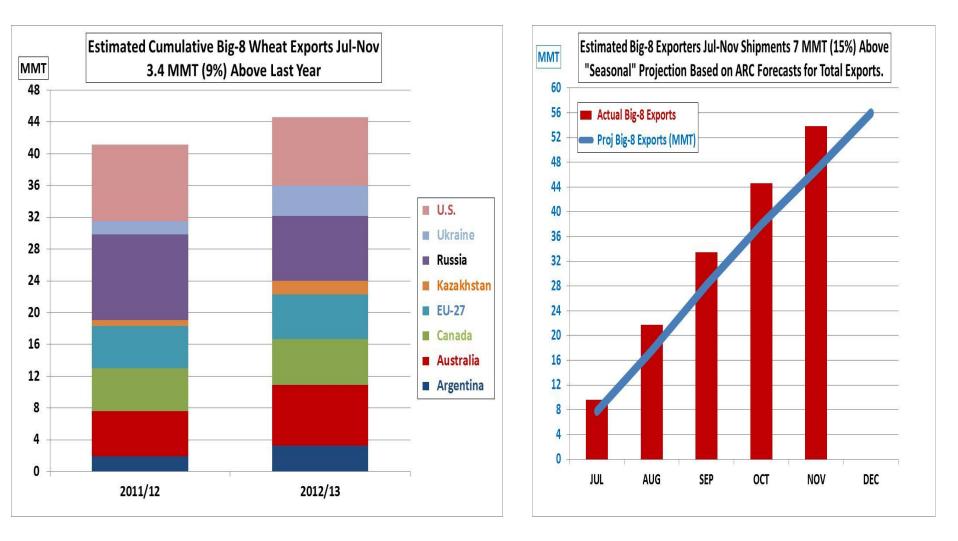






USDA Projects World Wheat Exports to <u>FALL</u> 14 MMT (9%) But Shipments From Major Exporters Are <u>UP</u> 3.4 MMT (9%) From Year Ago?

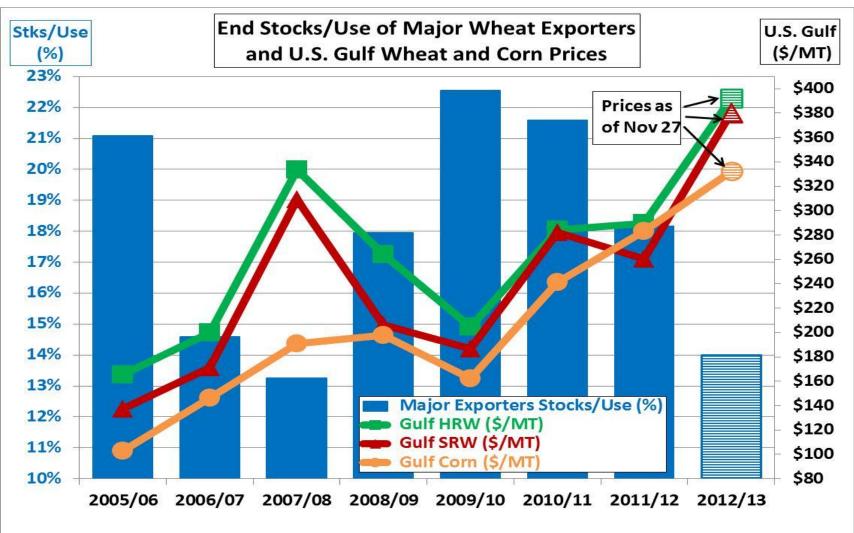






U.S. FOB Wheat Prices Correlated With Ratio of Major Exporters' Stocks/Use

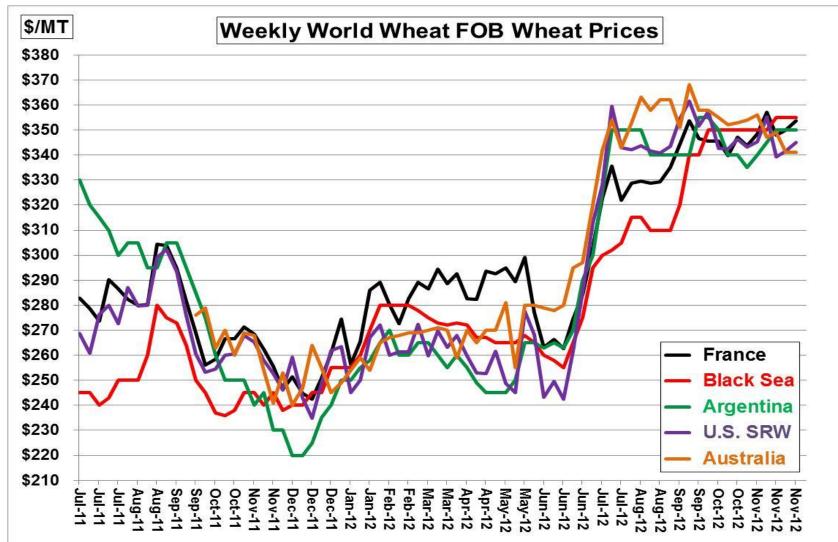






Global Wheat FOB Prices Have Converged

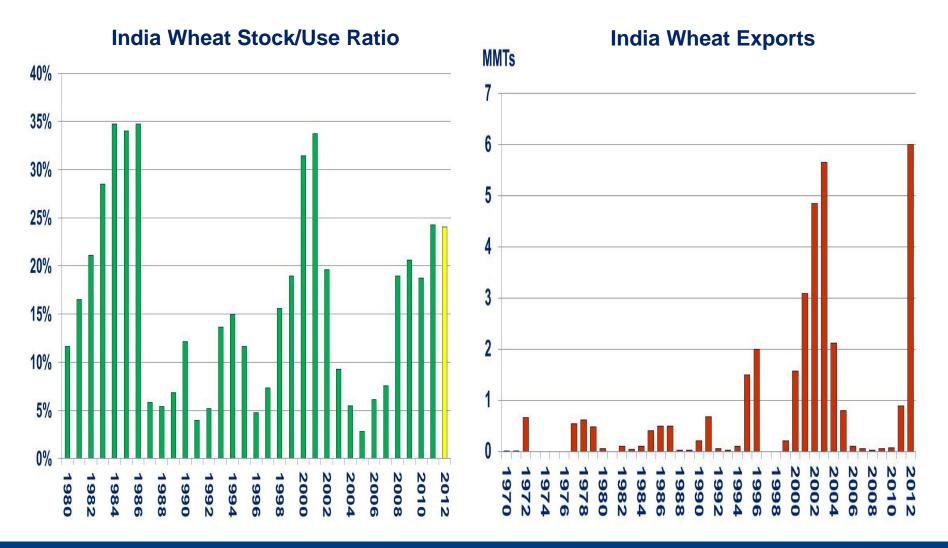






India: Record Crops = Record Govt Stocks = Record Exports? Logistics & Quality Concerns Hinder Export Capacity

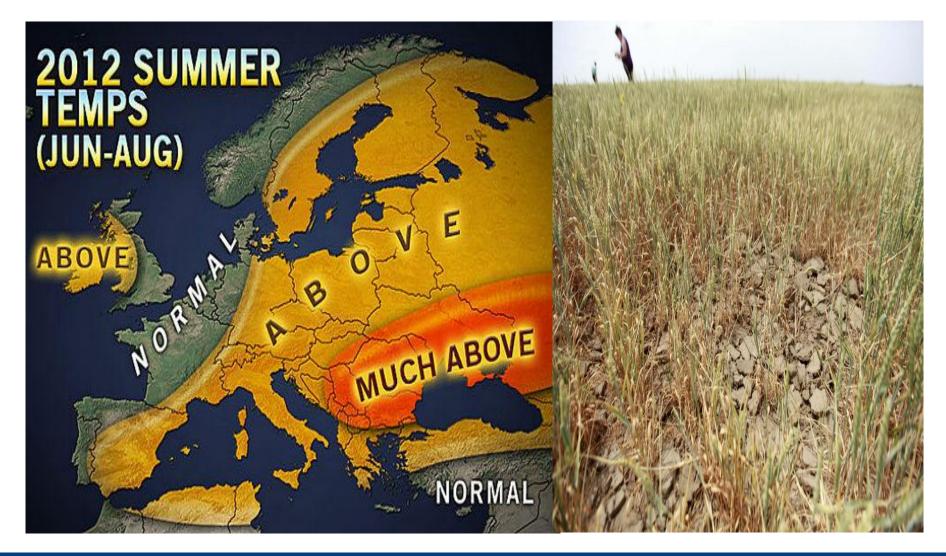






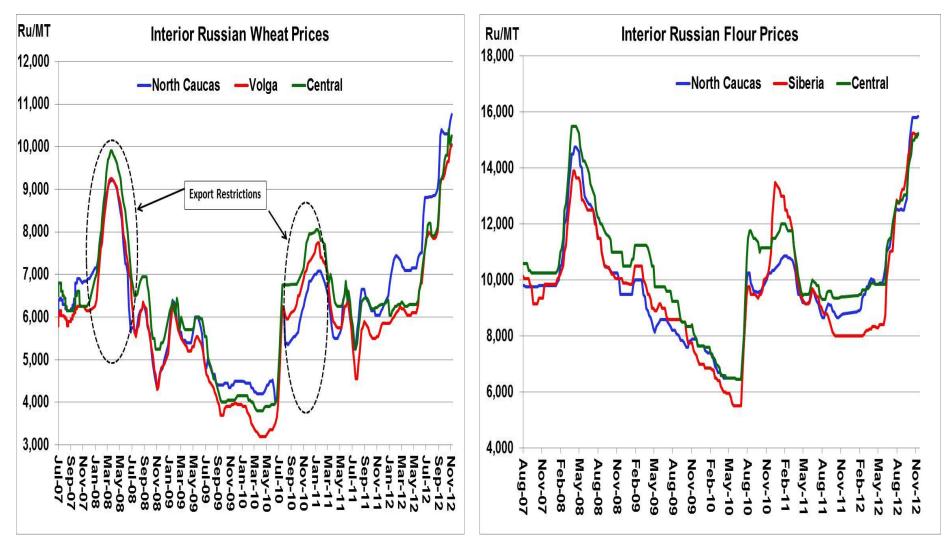
FSU-12 Drought Pushes Russian Domestic Wheat Prices To Record







What Will Russia Do Now? Domestic Prices at Record Levels





200

150

Jan-12

Feb-12

Mar-1

May-1

lun-1

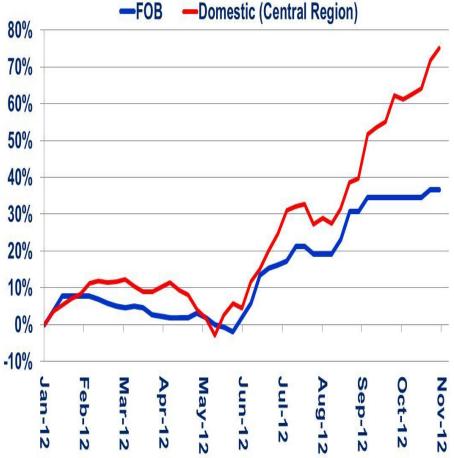
Apr-12

Russian Domestic Wheat Price Fast Approaching FOB Price



Russian Domestic & FOB Wheat Prices

Change in Russian Prices Since Jan 1



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Oct-12

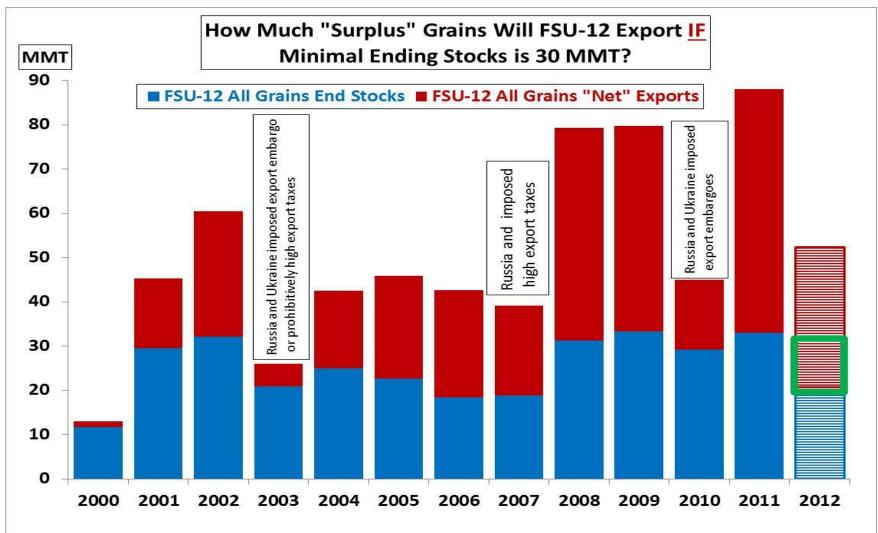
Sep-1

Aug-1

ul-12



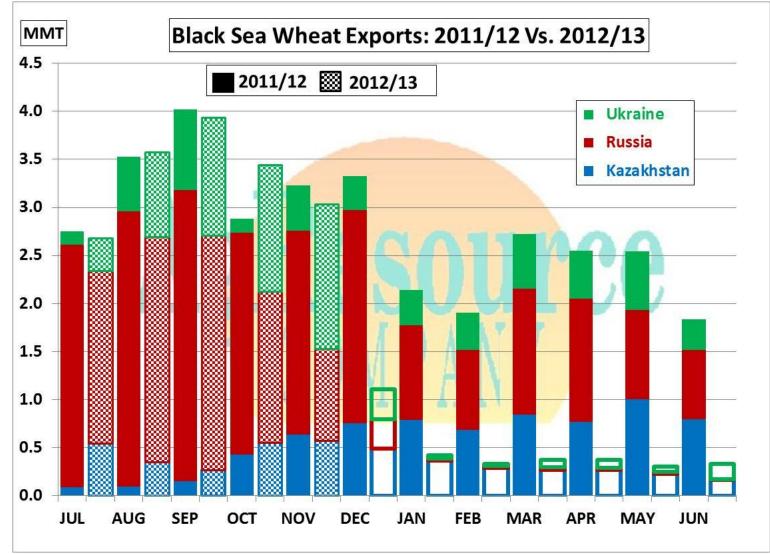
Importers Still Unsure If/When FSU-12 Age Wheat Exports Will be Restricted





Even Without Restrictions, FSU-12 Has Little Wheat Left to Export







As Usual, Global Weather Is the Key To Wheat Price Outlook



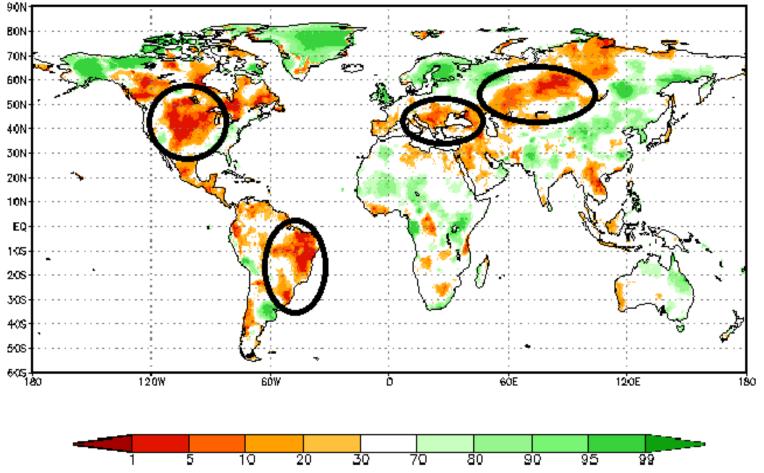




There Are Several "Hot Spots" Besides The U.S. in 2013 Global Wheat Outlook



Calculated Soil Moisture Ranking Percentile OCT 2012





Global Wheat's Weather Problems Also Include <u>Too Much</u>Rain



"The Summer That Never Was in <u>UK</u>" Will Boost UK's Imports. Continued Rains Will Reduce 2013 Area Seeded by 12-15%.



14 MIn Ha Affected by Flooding in <u>Arg's</u> Buenos Aires and Santa Cruz. How Much Much Damage Did Wheat Crop Suffer?



Fuente: Servicio Meteorológico Nacional / LA NACION

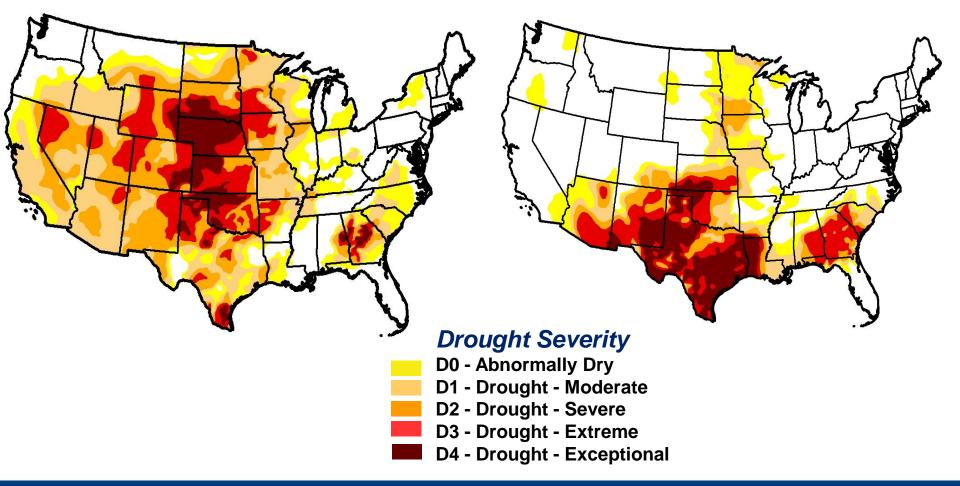


US Drought Monitor – 2012 vs 2011



November 20, 2012

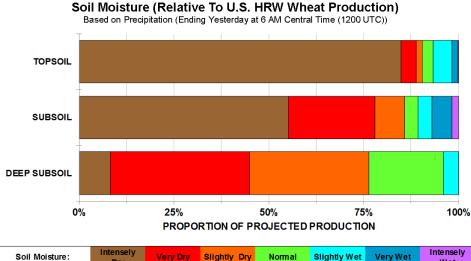
November 22, 2011





Heart of U.S. HRW Belt is Driest on Record

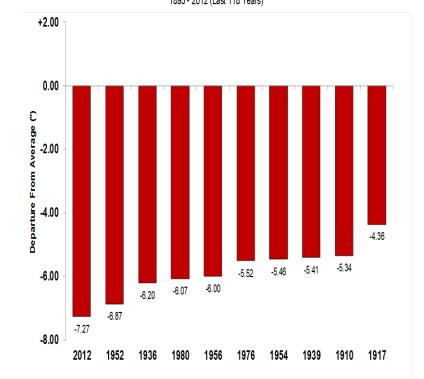




| Soil Moisture: | Dry | Very Dry | Slightly Dry | Normal | Slightly Wet | Very Wet | Wet |
|--|------------|-------------|--------------|--------------|---------------|---------------|----------------------|
| Precipitation (Percent of Average): | (0% - 25%) | (25% - 50%) | (50% - 75%) | (75% - 125%) | (125% - 200%) | (200% - 300%) | (300% +) |
| TOPSOIL | 85% | 4% | 2% | 3% | 5% | 2% | 0% |
| SUBSOIL | 55% | 23% | 8% | 3% | 4% | 5% | 2% |
| DEEP SUBSOIL | 8% | 37% | 31% | 20% | 4% | 0% | 0% |
| | | | | | | | T-storm [®] |

Topsol, subsoil, and deep subsoil moisture are cakulated through a proprietary geographic information system analysis of precipitation at the sub-county level over the last 14, 30, and 90 days, respectively. Precipitation is weighted by average U.S. crop production over the last five years. As provided by the USDA, corn and soybeans include all corn and soybeans grown in the U.S. HRW wheat is defined as winter wheat in the Plains, SRW wheat is defined as winter wheat in the Corn Belt and Delts, spring wheat is "other spring wheat". Dry, normal, and wet soil moisture are defined as crops that receive less than 706, 706-125%, and more than 125% of ta average precipitation, respectively.

10 Driest June-November Periods* in Kansas-Nebraska-Oklahoma 1895 - 2012 (Last 118 Years)



Data source: National Climatic Data Center * November 2012 precipitation is preliminary

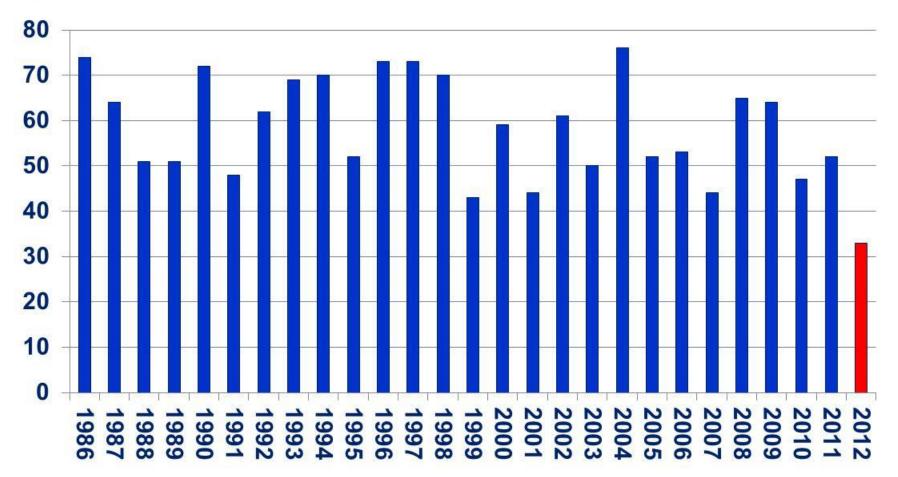




U.S. Winter Wheat Crop Conditions as of Late-November



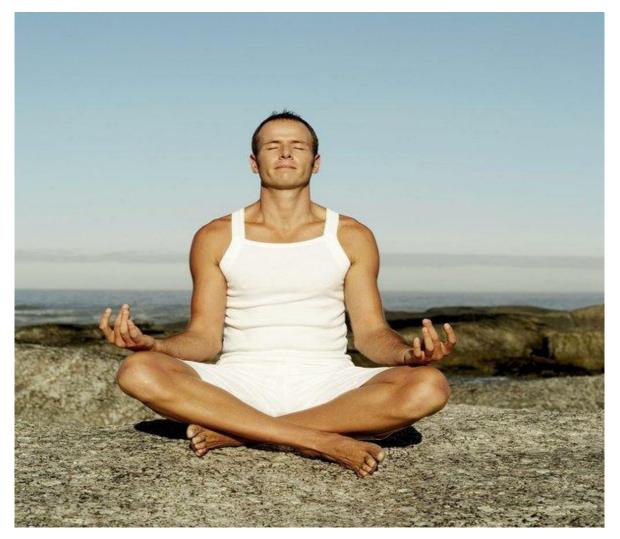
% GD/EX





Why Are End Users (and Traders) Agreeource So Calm? And/or Short Bought?

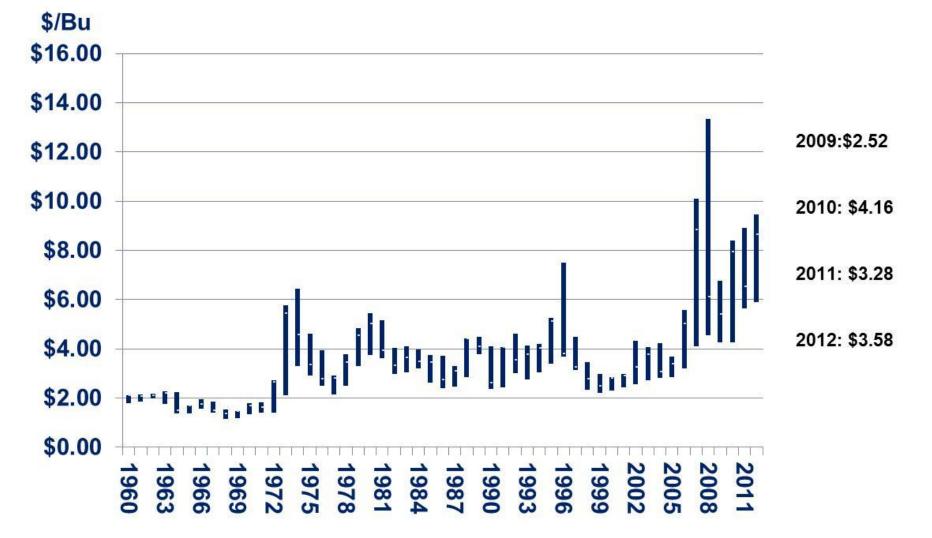






Chicago Wheat Market – Annual Price Ranges 1960-2012

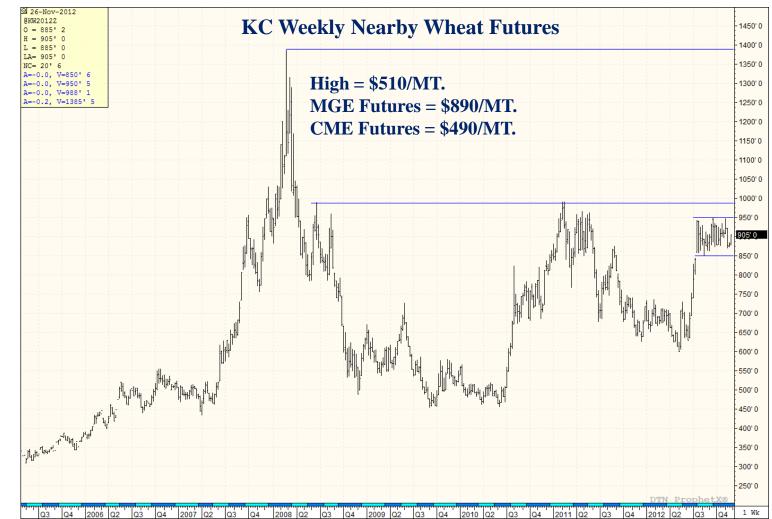
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World Wheat Prices Could Return to Historic Highs if One or Two Exporters Have Crop Problems in 2013

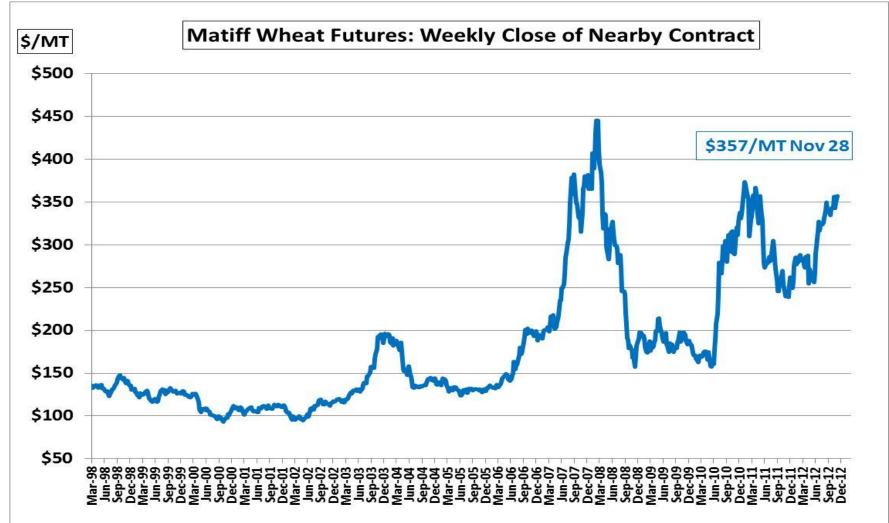






Matiff Wheat Expected To Rise Faster Than CME Because EU Stocks Falling to Lower Levels Than U.S. Stocks







CME Wheat Options Argues That Few Are Worried About Rising Prices



July CME'S Wheat Options' Volatility is Substantially Below Predicted Value - - Implying Options Can Be Bought at a "Discount" 62 **Actual Volatility** 58 Predicted Volatility High was Mar '08 54 50 46 42 38 34 30 26 22 Predicted Volatility = f (Futures, Time, Month of Year) R-Sqrd = .98 18 May-09 Jul-09 Sep-09 Nov-09 Jan-10 Nov-06 Jan-07 Jan-07 Jul-07 Sep-07 Jul-08 May-08 May-08 Sep-08 Sep-08 Jan-09 Mar-09 May-1 Sep-Jan-Jan-



And There is a "Disconnect" Between Futures Prices and Options' Volatility

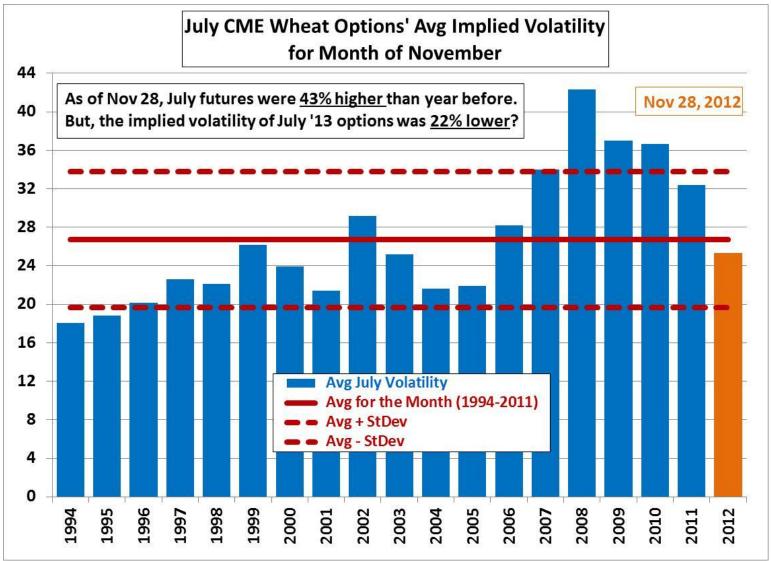


July CME Wheat Options' Volatility Is Highly Correlated With Futures But Appears to be Lagging Futures in Recent Years 360% **High Was Mar '08 Implied Volatility Index** 340% **Nearby Futures Index** 320% 300% 94 Ъ 280% ę 260% 2 240% as Futures 220% 200% 180% Volatility & 160% 140% 120% 100% 80% 60% Jul-95 Jul-96 Jul-96 Jul-97 Jul-97 Jul-99 Jul-99 Jul-01 Jul-02 Jul-05 Jul-05 Jul-05 Jul-05 Jul-05 Jul-06 Jul-05 Jul-06 Jul-05 Jul-06 Jul-07 Jul-06 Jul-07 Jul-06 Jul-07 Ju Jul-94 an-95



Given Exporters' Tight Stocks & Potential A Weather Problems, Options Are Cheap

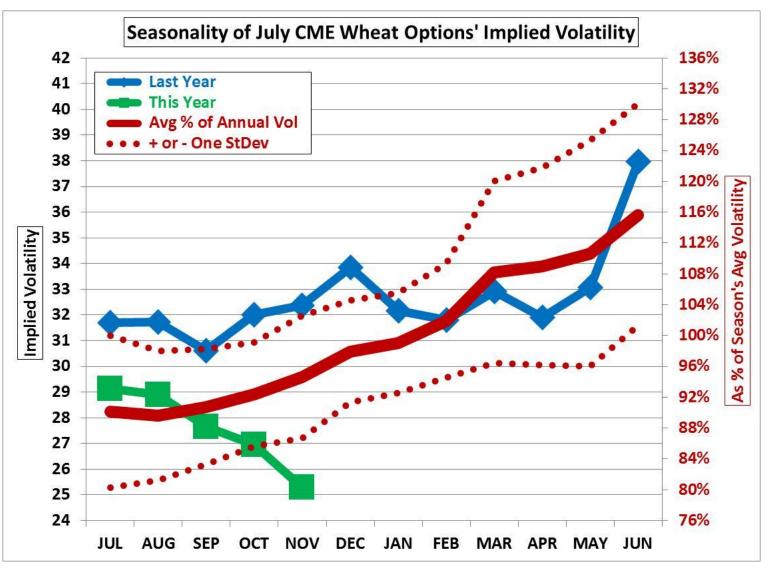
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Seasonal Option Trends Point To Higher Volatility As Season Advances

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2012/13 Wheat Summary



- Black Sea exports exhausted based on diminished crop yield (drought). EU wheat export sales are rising fast and must slow!
- The U.S./Canada will be the benefactors and they will set world price direction in FH 2013. U.S. SRW wheat will be the world's low cost wheat!
- 12/13 world wheat stocks are in decline. Market must rise to prevent feeding. If corn prices rise to \$8.30-9.00 (\$335 fob Gulf), wheat must maintain a premium. Drops to \$340-345 FOB French wheat are buys.
- ARC favors MATIF vs. Chicago wheat spreads as the EU oversells its export capacity.
- The Black Sea exported 14 MMTs in the Nov-May period of 11/12, S. Hemisphere wheat exports down 17 MMTs That's 31 MMTs of import potential that has to be filled by US/Canada/Australia and India.
- Adverse new crop weather in the U.S. and EU/FSU adds upside potential.
- A top in world wheat market will occur by March 2013 at \$420-\$440/MT FOB. With normal weather, prices could fall thereafter. Price explosion if US/EU/FSU crops harmed in '13.
 No stocks cushion!





