

Marketing Rules for Selling White Wheat

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Wheat prices more than doubled during the last year and much uncertainty exists about where prices will settle in the future. Over the past 25 years, economists at Oregon State University have tested marketing strategies for selling white wheat. Although prices are much higher now, their conclusions and advice still constitute a good starting point for farmers who are developing a marketing plan. Their advice can be summarized in the following three rules.

1. Day-to-day changes in the price of wheat are not predictable. Farmers should focus on producing wheat and are wasting their time if they spend much effort on marketing. See Buccola and Fujii (1998).

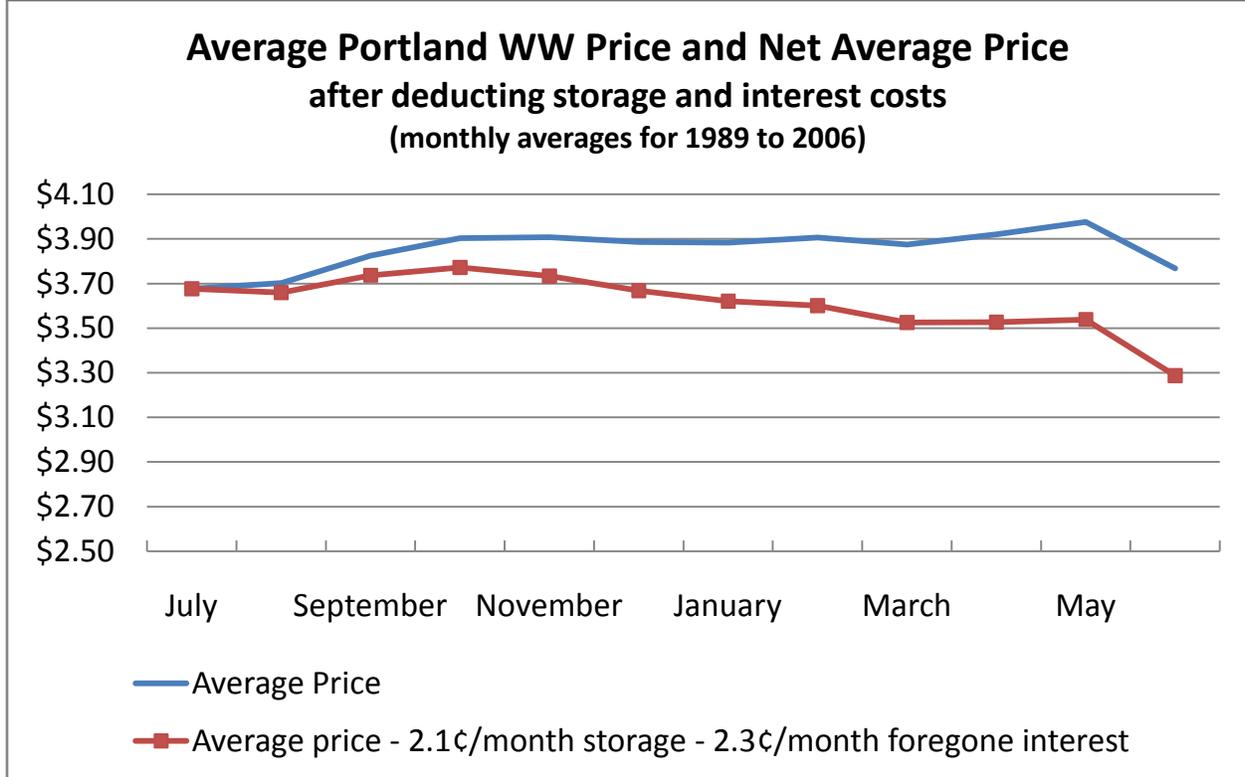
Many knowledgeable traders are buying and selling wheat every day. Exporters and professional traders have more information than farmers and have it sooner. Consequently, if new information indicates that wheat prices will rise in the future, prices will already be higher when farmers learn the news. If new reasons surface for a price decline, prices will decline before farmers can sell. Wheat markets are “efficient” processors of information and anyone who really knows the direction of the WW market is probably living very quietly in a big mansion in Lake Oswego.¹

2. Holding wheat unsold after harvest is expensive and prices don't normally increase enough to cover the costs of holding wheat. Farmers should normally sell their crop in the early fall of the year it is produced.

The biggest cost of holding wheat unsold is the forgone interest cost (either interest that could be earned on the settlement check or interest saved by paying down an operating loan). Forgone interest cost was approximately 2¢ per month when wheat averaged \$3.90 per bushel. At \$12 per bushel, forgone interest costs are approximately 7¢ per month. Charges by commercial warehouses also reduce the net return by more than 2¢ for each additional month the wheat is stored. Farm storage can be even more costly if the stored wheat must be treated for insects.

If WW prices in future years follow the same pattern as the monthly averages of prices for 1989 through 2006, farmers should wait to sell until after the Portland exporters have worked through the harvest glut in July and August. By mid-September, exporters will normally be bidding for wheat from inland sources. Until November, wheat prices have increased enough on average to cover holding costs. However, after mid-November, holding wheat unsold has not been a profitable strategy.

Chart 1



3. Economic forces tend to push wheat prices and the WW basis back toward their average values. Hence, when an anomaly exists in the level of wheat prices or basis (i.e., when WW prices or basis are significantly above or below their average values), farmers can earn a slightly higher return on average by modifying their marketing strategy to take advantage of the anomaly. Specifically,

- A. Farmers should hedge part of their upcoming crop in the year(s) before the crop is harvested if the Chicago futures prices are at least 10% above average.**
- B. If the cash price of WW is less than 80% of its average value, farmers should hold wheat unsold longer after harvest (since there is a better than even probability that prices will eventually rise enough to offset the higher holding costs).**
- C. If the wheat prices are near normal and the WW basis is less than 30¢, farmers should hedge their crop using March or May futures (to take advantage of the expected increase in the WW basis).²**

In all other situations, sell according to rule 2. See Larry Lev (1991) and (1992).

The tendency of WW prices to revert to their mean value is evident from Chart 2. High prices cause farmers to expand acreage planted to wheat and cause feedlots to substitute corn for wheat in their feed rations. The supply of wheat increases, demand falls and wheat prices tend

Chart 2

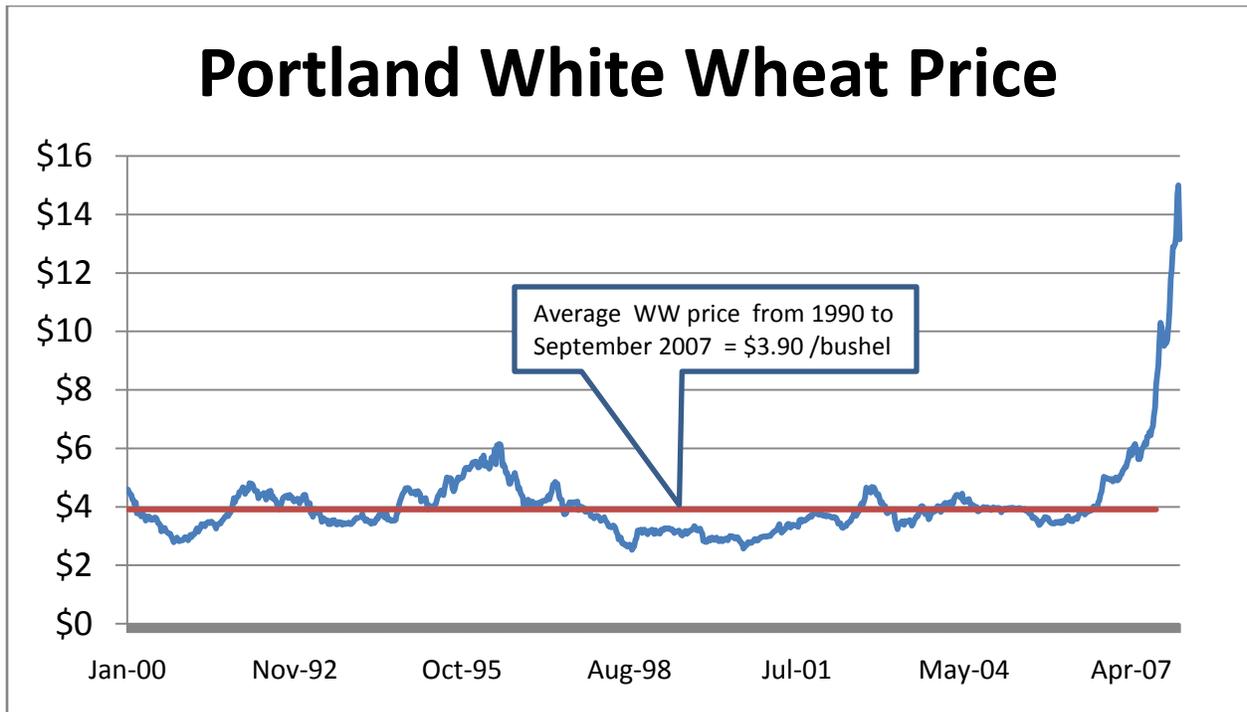
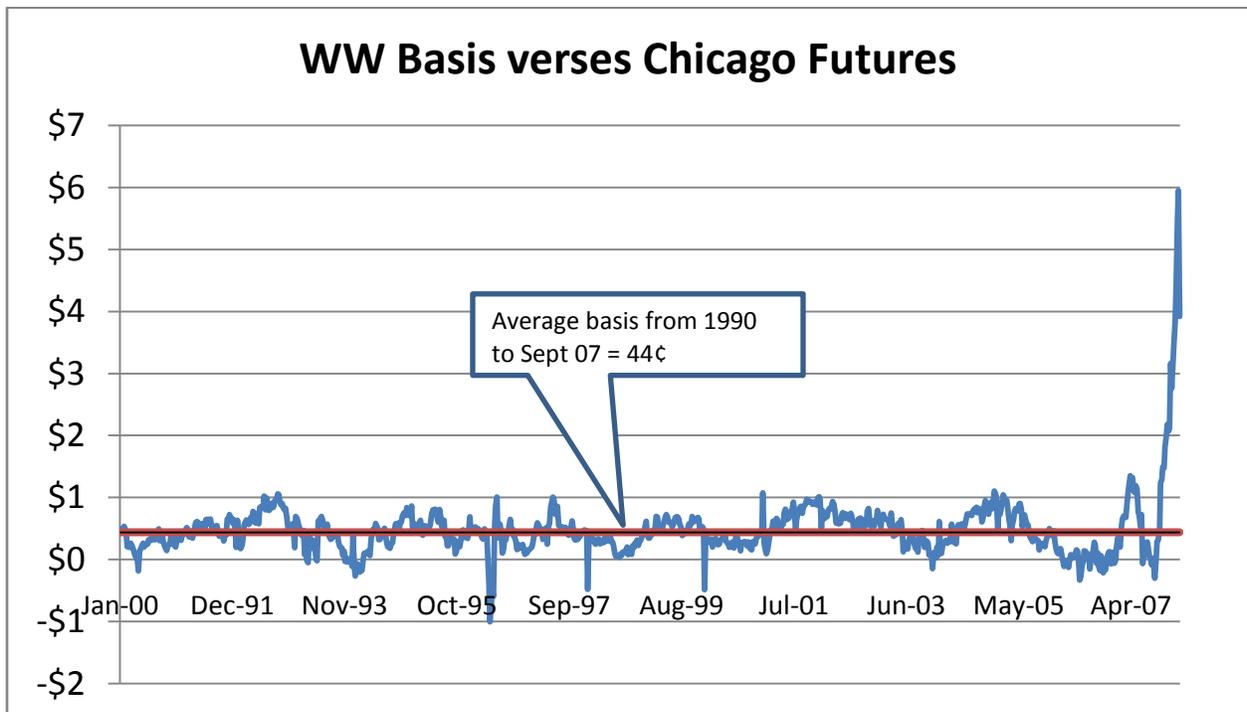
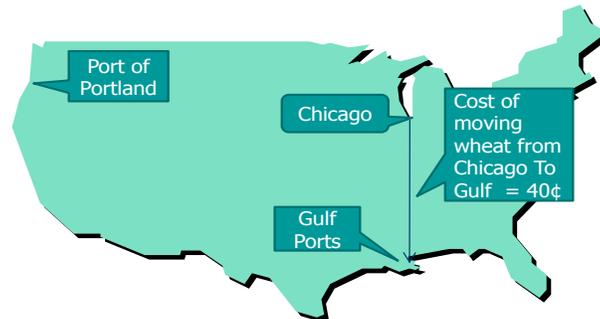


Chart 3



to decrease. Similarly, low prices reduce supply and increase the demand for wheat—causing prices over the next several months or years to increase.

WW basis should average 40¢
when export prices are equal



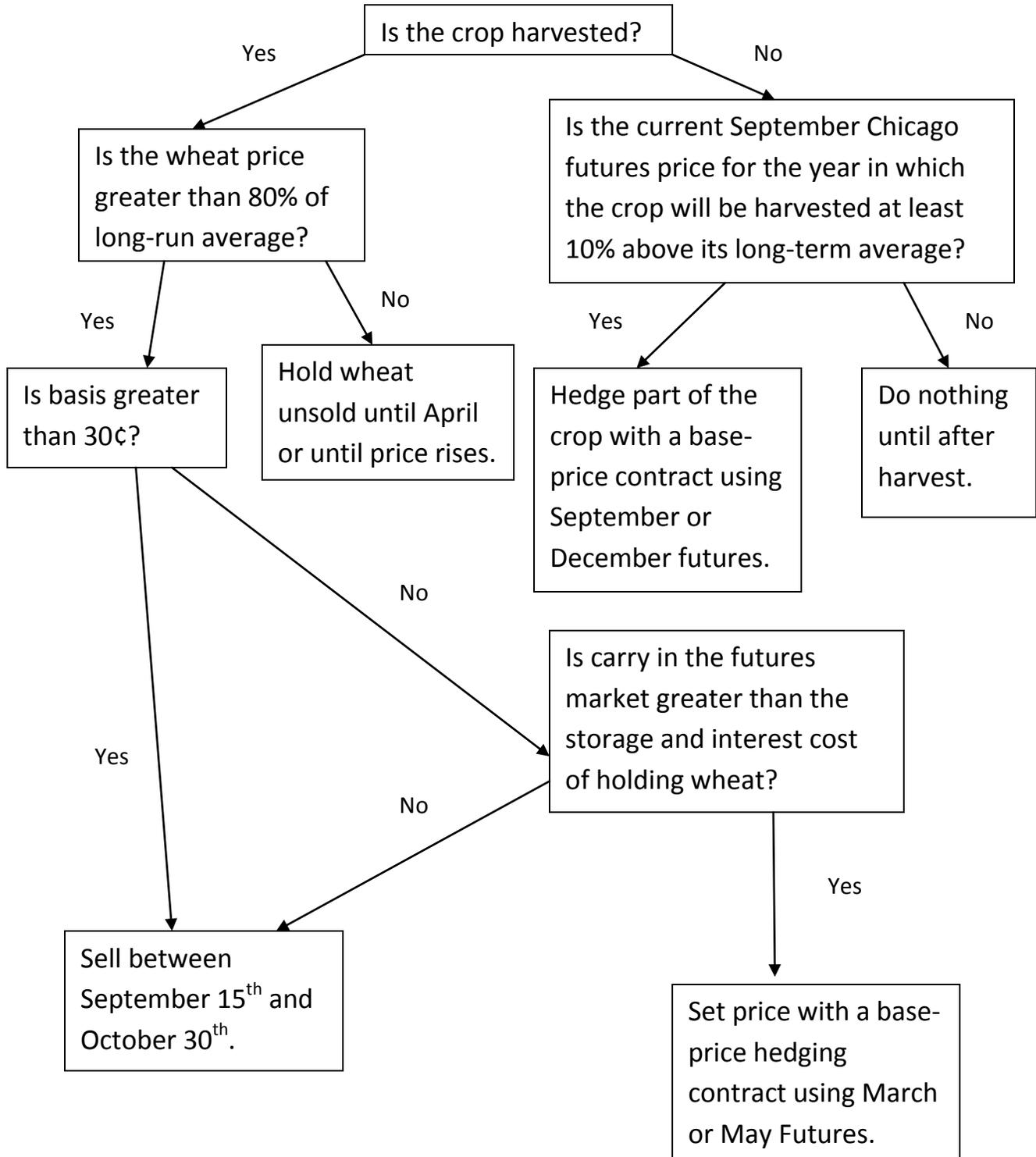
The WW basis should also return to its average value of approximately 40¢ (see chart 3). Since many foreign buyers can substitute soft red wheat for WW (and vice versa) and will purchase whichever class is cheaper, the price of WW in Portland is normally about equal to the price of soft red wheat at the Gulf ports. The Chicago futures market is 1,000 miles from the Gulf and the cost of shipping wheat from Chicago to the Gulf is about 40¢. Hence, the futures and cash price of soft red wheat in Chicago should be about 40¢ less than the price of wheat at the Gulf ports and market forces should cause the basis (the difference between wheat in Portland and wheat in Chicago) to tend toward 40¢.

Some Asian millers buy only WW and, if the world supply of WW is less than this “specific” demand, the WW basis can be much greater than 40¢ (as it has been this year due to the Australian droughts). If WW is abundant and soft red has a small crop, the basis can temporarily be negative. The substitutability of the two classes of wheat should, however, cause the basis to tend back toward its average value over time.³

Professor Lev did more than develop rules to take advantage of anomalies in the WW price level and basis. He also used actual prices for the years 1976 to 2000 to calculate how much farmers would gain by using his rules. In more than half the years, his rules recommended selling in early fall. In the years when prices or basis were abnormal, hedging and/or delaying cash sales produced a small increase in average returns of 4-5%.⁴ However, the period Professor Lev studied doesn’t contain any anomalies in the WW price or the Chicago futures markets that are as large as those that may exist today. Using his rules now could increase returns much more than 4%.

The USDA's most recent forecast of the season-average U.S. farm wheat prices is \$7 per bushel for the 2008 crop. WW prices should remain even stronger, at least until the Australian crop is harvested in December 2008 and world inventories of WW are replenished. The USDA is also forecasting that much higher wheat prices will cause world wheat production to increase from 603.6 million MT to 650 million MT in 2008. There are several good reasons to believe that average WW prices over the next five years will be \$2 per bushel higher than their frustratingly low average over the past thirty years. However, it is likely that expanding world production will eventually reduce prices from current levels. Farmers can now lock in a price over \$8 per bushel for their 2008, 2009, and 2010 crops. Are current price offers an "anomaly?" No one knows, but past marketing research indicates that pre-selling parts of future crops when prices are high has been a profitable strategy.

FLOWCHART FOR DECIDING WHEN TO SELL OR HEDGE A WHITE WHEAT CROP



REFERENCES:

Kim Anderson, B. Wade Brorsen, and Roger Sahs (1998) “Mechanical Wheat Marketing Strategies,” Agricultural Economics Department, Oklahoma State University. The paper was presented at the National Association of Wheat Growers convention, 1998.

Steve Buccola and Yoko Fujii (1998) “Should a Wheat Grower Focus on Marketing or Production?,” 1st Wheat Policy Lecture, December 1, 1998.

Larry Lev, (1991) “Harvest Marketing Strategies for PNW White Wheat,” OSU Extension Market Newsletter, June 25, 1991, AREC 91-01.

Larry Lev (1992) “Preharvest Pricing Strategies,” OSU Extension Market Newsletter, January 16, 1992, AREC 92-01.

ENDNOTES:

¹ Buccola and Fujii (1998) recommended selling the crop at harvest. They tested several mechanical marketing strategies (i.e., strategies that are used in the same way every year) and found none that produced a higher net return than selling at harvest. Their approach and conclusions are similar to Anderson, Brorsen, and Sahs (1998), who focus on marketing hard red wheat. Neither tested selective market strategies (i.e., strategies used only when marketing conditions look favorable) such as those recommended by Larry Lev (1991) and (1992).

² An additional condition for recommending hedging the crop is that the “carry” in the futures market must be enough to offset the cost of holding wheat until spring; e.g., the March Chicago futures must be at least 20¢ higher than the September futures.

³ Since the WW basis depends on the cost of transporting wheat between Chicago and the Gulf ports, rising fuel costs should cause the average WW basis to increase somewhat in future years. The WW basis has reverted back toward its average value within several months in most cases. However, the fluctuations in the WW basis have been as large as the fluctuations in the WW price. Hence, WW farmers can not use hedging in the Chicago soft red futures market to reduce risk. Hedging WW shifts the risk—from the cash market to the WW basis.

⁴ Anderson, Brorsen, and Sahs (1998) conclude:

The differences between one marketing strategy and another are small, but the results slightly favor selling at harvest. The good news for producers that enjoy marketing and that enjoy keeping up with price trends, cycles and patterns is that efforts to “beat the market” will, on average, only cost a few cents a bushel.

I like this quote because it reflects my experience. I have generally lost money by using hedges and options or by holding wheat into the spring in the hope that prices will rise. However, I believe I would have earned a small positive return if I had consistently followed the approach summarized in rule 3. I don’t know whether my extra return would be great enough to cover the cost of my time spent driving to marketing meetings in the hope of finding a profitable anomaly. However, I’ve been attending regular marketing meetings for 20 years—so I must enjoy them.