

## Basis and Price Formation

### Basis

Basis is the difference between a cash price at a specific location and the price of a particular futures contract. The cash price offered to a grain producer for any given marketing strategy is a function of local basis.

## Basis Changes

- The lower the cash price relative to futures prices, the weaker the basis. A weak basis is good for cash buyers, and bad for cash sellers
- The higher the cash price is relative to futures, the stronger the basis. A strong basis is bad for cash buyers, and good for cash sellers.

## Determination of Basis

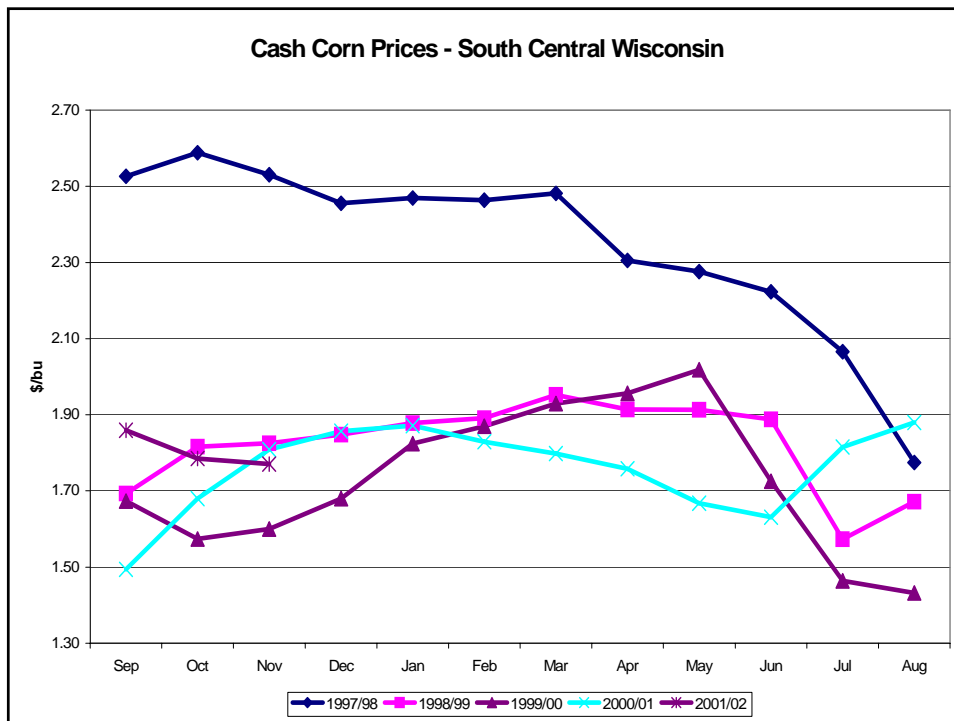
### Major Factors

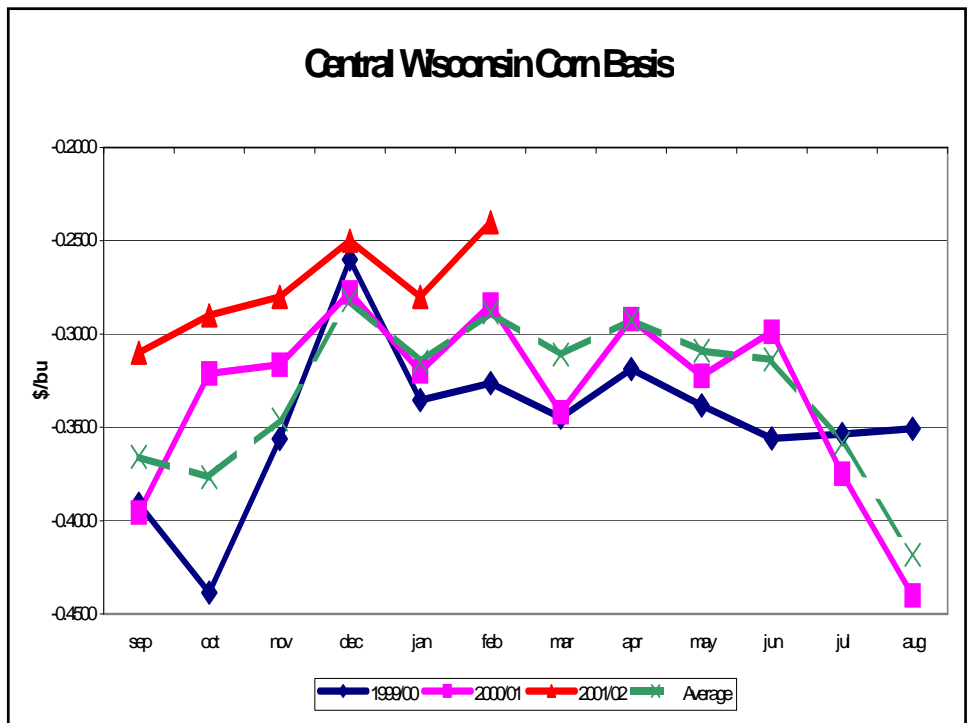
- **COST OF STORAGE:** Determines basis over a given crop year. Also affects the price difference between a nearby and a distant futures contract in a given crop year.
- **COST OF TRANSPORTATION:** Determines basis geographically.

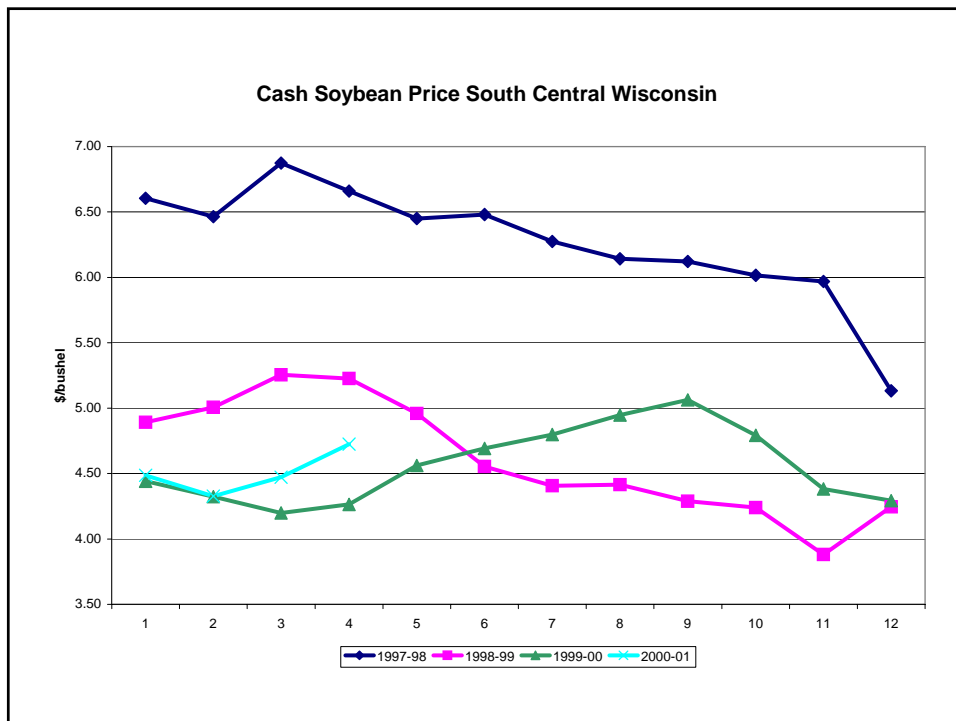
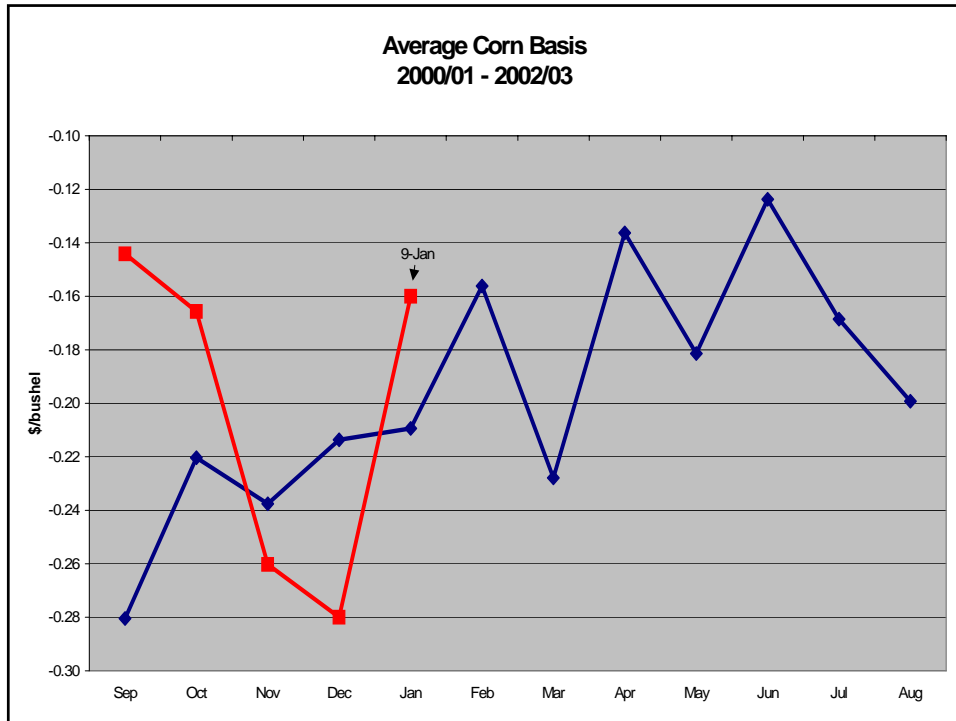
## Determination of Basis

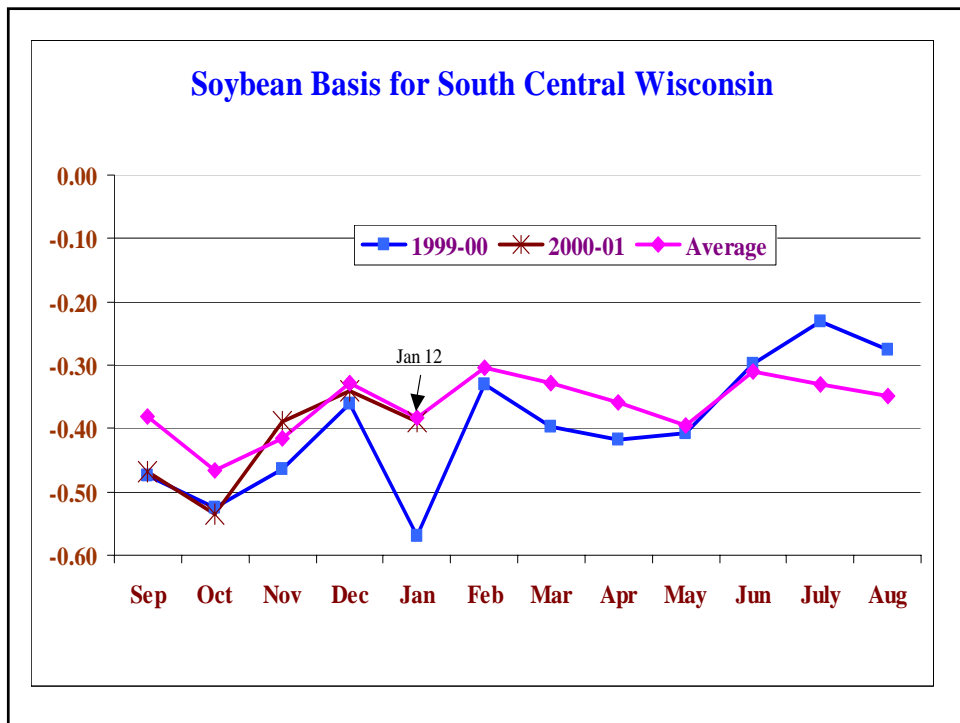
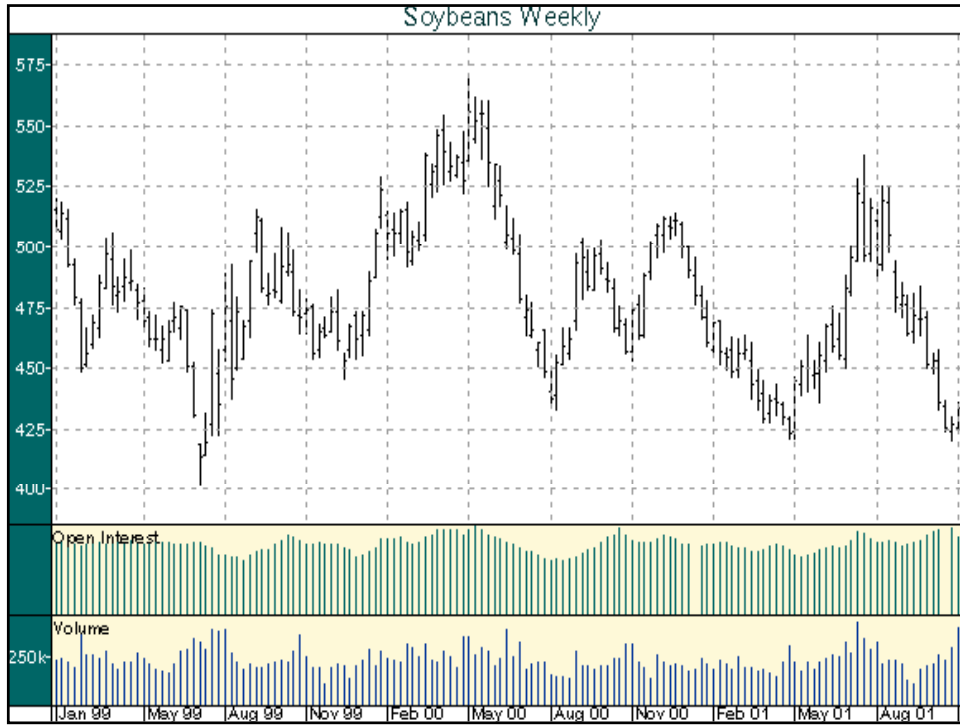
### Other Factors:

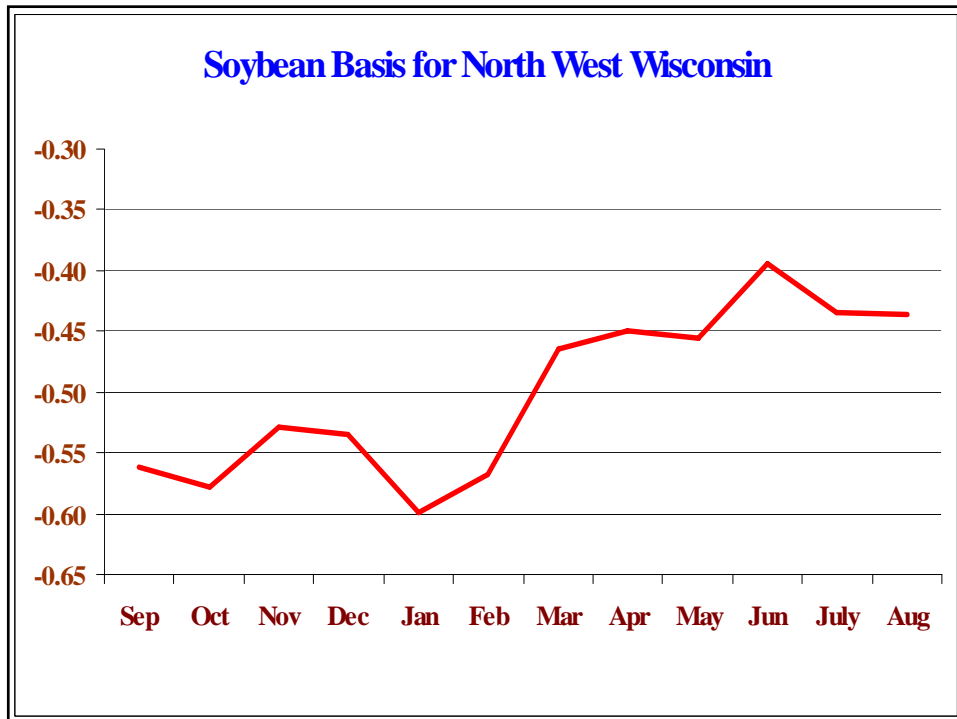
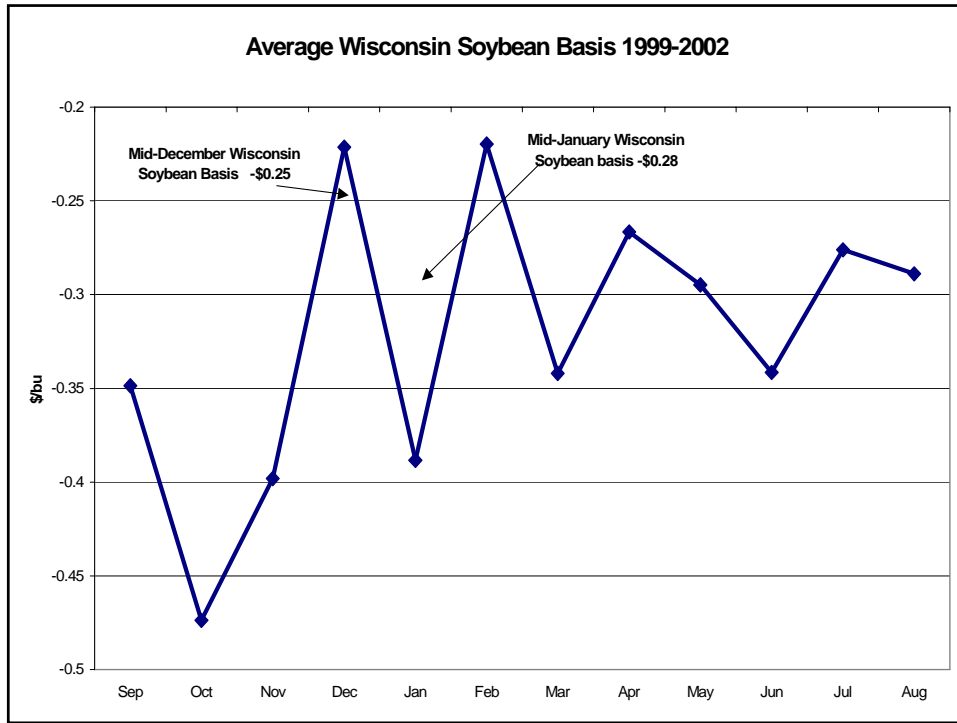
- Local supply and demand conditions
- Grain quality
- Intensity of local Competition











## Recording Basis

To record historical basis levels, collect closing futures prices for the contract closest to maturity (but not expiring in the current month) each Wednesday, and the corresponding cash price (collected later Wednesday or Thursday morning). Subtract the futures price from the cash price. Average the Wednesday basis calculations for each month to arrive at the average monthly basis level.

### North West Wisconsin Corn Basis

	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
1997-98	-0.31877	-0.39297	-0.40345	-0.33598	-0.28343	-0.28819	-0.24305	-0.27245	-0.2132	-0.27959	-0.29395	-0.35444
1998-99	-0.41107	-0.524	-0.37912	-0.37165	-0.34856	-0.34432	-0.34009	-0.30832	-0.32487	-0.34479	-0.45698	-0.5872
1999-00	-0.51178	-0.5177	-0.32119	-0.32746	-0.40758	-0.39983	-0.43966	-0.38024	-0.38507	-0.4233	-0.40417	-0.42223
2000-01	-0.4909	-0.3611	-0.37									
Average	-0.47125	-0.4676	-0.35677	-0.34503	-0.34652	-0.34411	-0.34093	-0.32034	-0.30771	-0.34923	-0.38503	-0.45462

Wisconsin Soybean Basis												
	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
2000/01	-0.44	-0.26	-0.39	-0.28	-0.31	-0.43	-0.29	-0.09	-0.26	-0.21	-0.38	-0.27
2001/02	0.02	-0.36	-0.36	-0.01	-0.23	-0.02	-0.29	-0.05	-0.21	-0.23	-0.39	-0.31
2002/03	-0.57	-0.30	-0.40	-0.33	-0.33	-0.41	-0.50	-0.36	-0.42	-0.24	-0.16	0.09
Average	-0.33	-0.31	-0.38	-0.20	-0.29	-0.29	-0.36	-0.17	-0.30	-0.23	-0.31	-0.16

Using basis information to evaluate a storage decision.

January 23, 2004

Today's cash price	\$8.07
March futures price	\$8.40
May futures price	\$8.39
July futures price	\$8.27

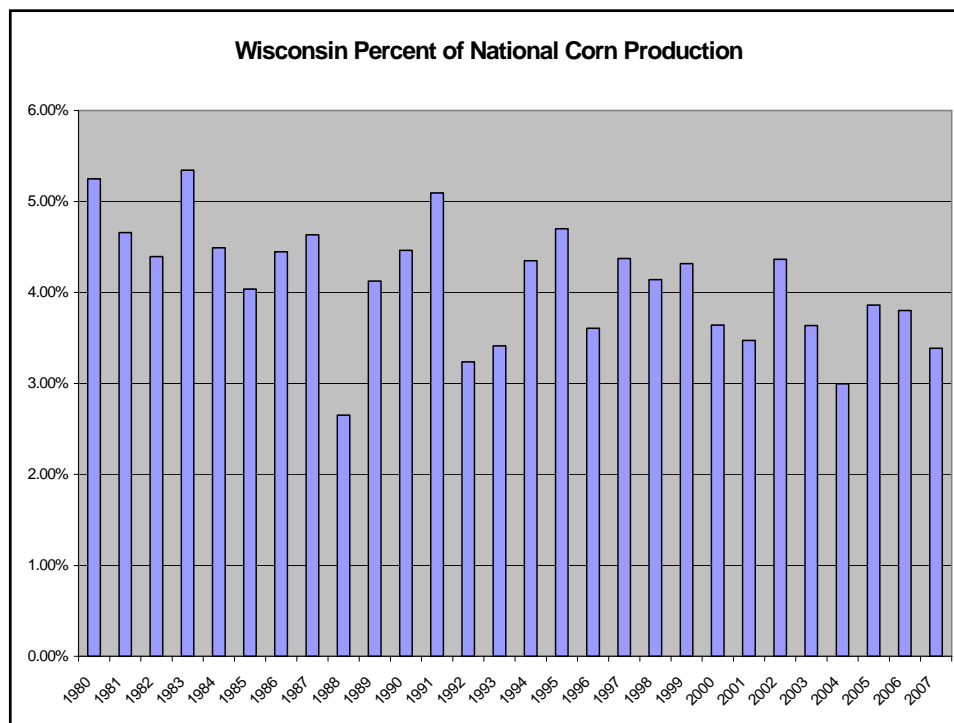
Expected cash prices for later delivery on January 15:

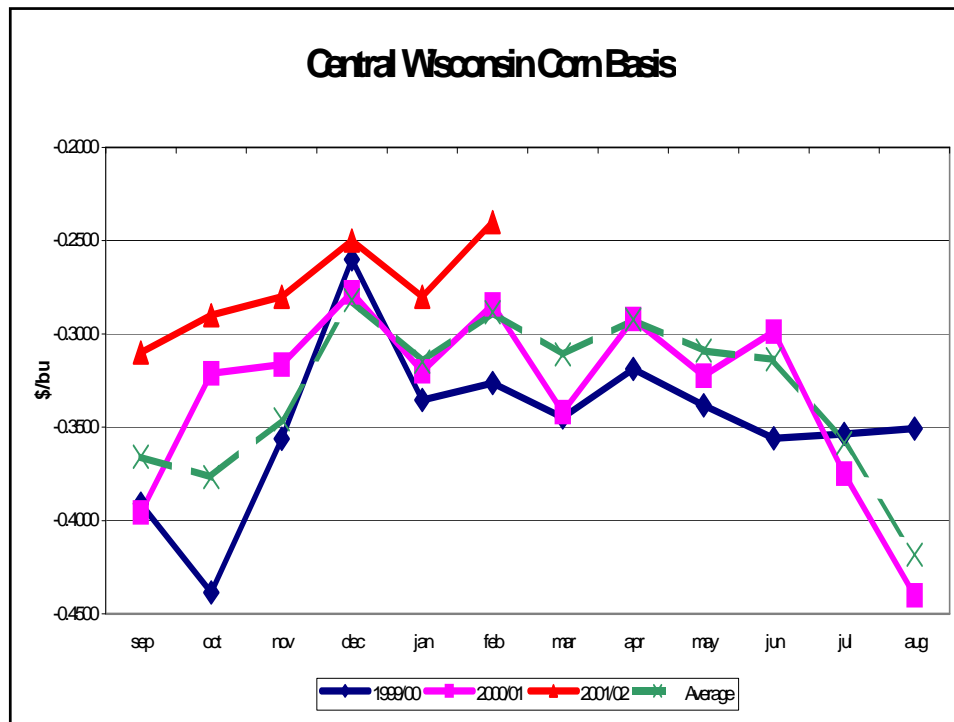
Store Until:	February	March	April	May	June
Futures Price	\$8.40	\$8.39	\$8.39	\$8.27	\$8.27
Expected Basis	-\$0.29	-\$0.36	-\$0.17	-\$0.30	-\$0.23
Expected Cash Price	\$8.11	\$8.03	\$8.22	\$7.97	\$8.04
<b>Storage Return</b>					
Expected Cash Price	\$8.11	\$8.03	\$8.22	\$7.97	\$8.04
minus Today's Price	\$8.07	\$8.07	\$8.07	\$8.07	\$8.07
minus Storage Costs*	\$0.035	\$0.07	\$0.105	\$0.14	\$0.175
Total Return	\$0.005	-\$0.11	\$0.045	-\$0.24	-\$0.205
Per Month Return	\$0.005	-\$0.055	\$0.015	-\$0.06	-\$0.041

\* Storage costs are 3.5 cents per month.

## Factors Affecting Basis

- Good weather at harvest
- Big crops in competing countries
- Big surplus stocks
- Inadequate storage on farms
- Shortage of rail cars or barges
- Increase in ethanol production
- Expansion of livestock operations





The basis allows a market participant to “localize” all the information in the futures market. because basis is reasonably predictable, the cash market can offer forward pricing opportunities.

