

# DETERMINING A RENTAL PRICE FOR CROP LAND

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# DETERMINING A RENTAL PRICE FOR CROP LAND

- ✖ Rental arrangement options
  - + Fixed Cash Rent
  - + Flexible Cash Rent
  - + Crop-Share





# RISK EXPOSURE



## Landlord

Low

- ✗ Fixed Cash Rent
- ✗ Flexible Cash Rent
- ✗ Crop-Share
- ✗ Custom Farming



High

## Renter

High

- ✗ Fixed Cash Rent
- ✗ Flexible Cash Rent
- ✗ Crop-Share
- ✗ Custom Farming



Low



Risk is real, risk has value, risk must be compensated. (5-8% Gross Revenue)  
(Hay ground- 20% Gross Revenue)

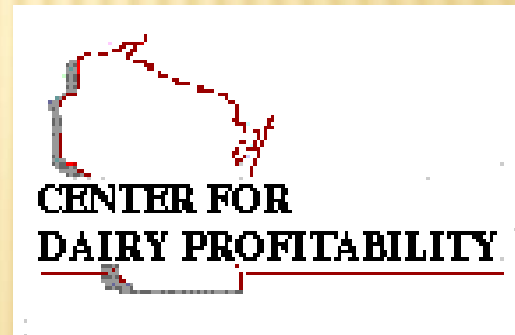


Risk- Price, cost and production

# RISK EXPOSURE

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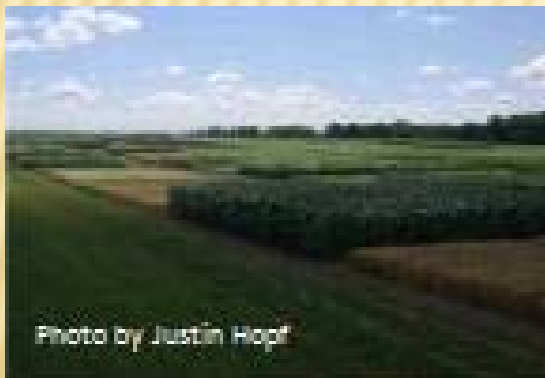
- ✖ Share the wealth
- ✖ Share the risk?



# DETERMINING A RENTAL PRICE FOR CROP LAND

## ✕ Primary Objective

- + Fun?
- + Profit?



## ✕ Criteria

- + Personal preference
- + Competition
- + Comparison
- + Yield Potential
- + Gross Income Potential
- + Profit potential





# DETERMINING A RENTAL PRICE FOR CROP LAND

✕ **Cash rent** value correlation to;

+ Corn Yield (2008)-  $R^2 = .8518$

+ Northern Wisconsin

County Average Yield (bu.)			County Level Cash Rent		
Min	Max	Avg.	Min	Max	Avg.
81.2	125.8	106.8	\$28	\$62	\$45

(2003-2007 Five Year Rolling Average)

# DETERMINING A RENTAL PRICE FOR CROP LAND

✖ **Cash rent** value correlation to;

+ Gross Revenue (2009)- 1967 to 2010 data

+ Wisconsin

Low	Avg.	High
17%	22%	26%

\$68	\$88	\$104
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\$85	\$110	\$130
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(Five Year Rolling Average)

Corn 100 bushel yield

@ \$4.00/bu.

@ \$5.00



# DETERMINING A RENTAL PRICE FOR CROP LAND

✕ **Cash rent** correlation to;

+ Land Value

✕ Wisconsin

2.0% - 2.5%

$\$2,400/\text{acre} \times 0.02/0.025 = \$48 - \$60/\text{acre}$





# DETERMINING A RENTAL PRICE FOR CROP LAND

## ✖ AGRICULTURAL CASH RENTS

✖ Wisconsin, 2005-2009      \*\* (2010)

Dollars per acre

✖ Year

Cropland rented for cash

Pasture rented for cash

✖ 2005	70.00	38.00
✖ 2006	71.00	38.00
✖ 2007	72.00	38.00
✖ 2008	85.00	36.00
✖ 2009	87.00	36.00
✖ 2010	121.00	24.00

# DETERMINING A RENTAL PRICE FOR CROP LAND

- ✖ AGRICULTURAL LAND VALUES: Average Value
- ✖ Per Acre, Wisconsin, 2005-2009 1/ Dollars per acre

✖ Year	Farm real estate 2/	Cropland	Pasture
✖ 2005	2,790	2,540	1,450
✖ 2006	3,100	2,900	1,740
✖ 2007	3,640	3,370	2,000
✖ 2008	3,850	3,600	2,130
✖ 2009	3,750	3,650	2,050
✖ 2010	2,940	2,770	1,400

1/Value at which the land could be sold under current market conditions. 2/Value includes land and buildings



# DETERMINING A RENTAL PRICE FOR CROP LAND

✖ Crop Land Rent/Acre (WASS) dollars/acre

County	2008	2009
✖ Ashland	1/	17.50
✖ Clark	51.50	52.00
✖ Lincoln	28.50	30.00
✖ Marathon	49.50	50.00
✖ Taylor	42.00	47.00
✖ North Central	45.50	41.00

# DETERMINING A RENTAL PRICE FOR CROP LAND

- ✖ The amount the landlord desires
- ✖ The amount the renter can afford or is willing to pay





# DETERMINING A RENTAL PRICE FOR CROP LAND

## × Flexible Cash Rent

### + “Price”

- × Base grain price and rental rate/acre
  - × Base rent X current price/base price = adjusted rent/acre
- $\$50 \times (\$5.00/4.75) = \$52.63/\text{acre}$  for current year
- × Base rent with stated adjustments outside of price range
  - × Minimum base rent with upward adjustments only

# FLEXIBLE CASH RENT, CONTINUED

## × “Price and Yield”

- × Base rent X (current price/base price) X (current yield/ base yield) = adjusted current year's rent
- × Current year's yield X current year's price X agreed %
- × Base rent, yield & price + % increase in crop value/acre over base amount

## × “Yield”

- × Fixed number of bushels/year
- × Avoids renegotiating cash rents annually
- × Bottom Line- *Compromise!*



# DETERMINING A RENTAL PRICE FOR CROP LAND

## × “Crop-Share” Rent (50/50; 60/40; 70/30?)

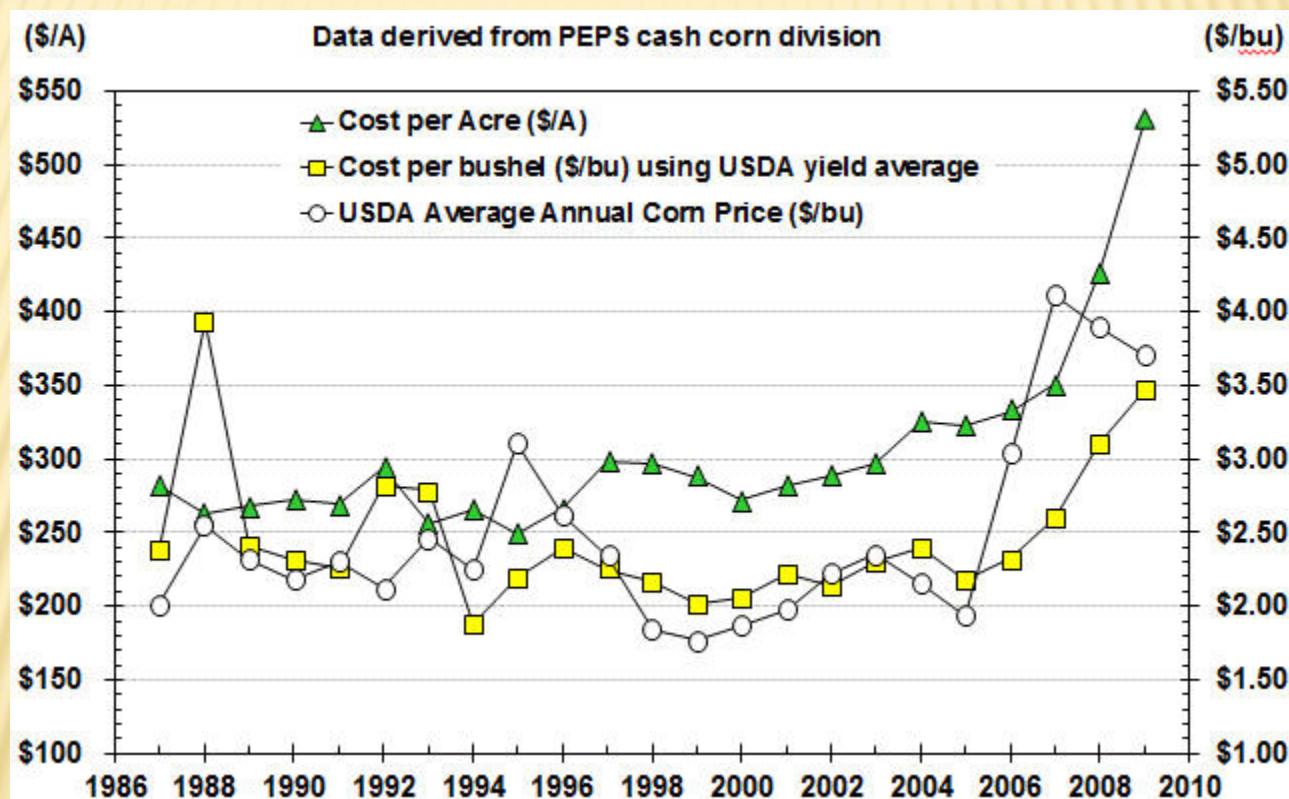
### + Grower

- × Value of crop produced/Cost inputs
- × Machinery cost/acre (Deprec., interest, repairs, insurance)
- × Labor (2-5 hrs/acre @ \$10.00/hr.)
- × Management (6% Gross revenue)

### + Landlord- land ownership costs

- × Value of crop produced/Cost inputs
- × Interest on investment
- × Real estate tax
- × Deprec. (tile, fences), interest, repairs & insurance)

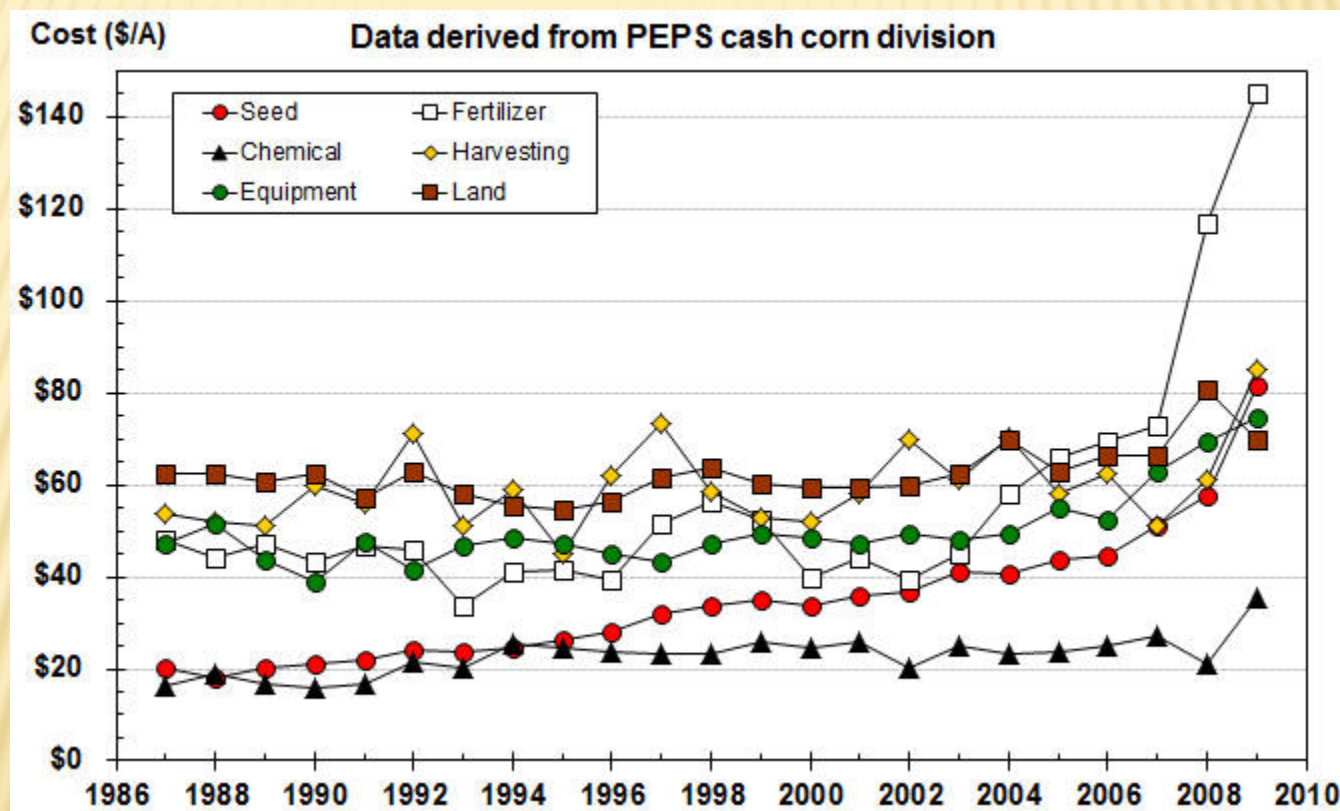
# DETERMINING A RENTAL PRICE FOR CROP LAND



Joe Lauer, UW-Extension Corn Agronomist



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# DETERMINING A RENTAL PRICE FOR CROP LAND

“Volatility is here to stay in grain and oilseed markets, according to Rabobank Food & Agribusiness Research and Advisory (FAR) vice president Sterling Liddell.”

DairyProfit Weekly September 2010



# DETERMINING A RENTAL PRICE FOR CROP LAND

- ✗ What costs do you want covered?
  - + Total cash expenses
  - + Non-cash
    - ✗ Change in Accounts Receivable
    - ✗ Change in Accounts Payable
  - + Interest paid
  - + Wages and Benefits
  - + Depreciation

# WHAT COSTS DO YOU WANT COVERED? CONT.

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- ✖ Debt service
- ✖ Family living
  - + Household replacement
  - + Health insurance
- ✖ Asset replacement
  - + Equipment
  - + Pickup
- ✖ College fund/Savings



# DETERMINING A RENTAL PRICE FOR CROP LAND

## ✕ Profit

### + Partial Budgets

<http://www.uwex.edu/ces/ag/teams/grains/>

Corn after Soybeans budget

<http://cdp.wisc.edu/crop%20enterprise.htm>

Many!

### + Cash Rent Evaluator

Bruce Jones homepage <http://www.aae.wisc.edu/jones/>

# DETERMINING A RENTAL PRICE FOR CROP LAND

- ✖ Corn Silage after Alfalfa

<http://www.uwex.edu/ces/crops/uwforage/Silage.htm>

- ✖ Alfalfa and Pasture Budgets

<http://cdp.wisc.edu/crop%20enterprise.htm>



# DETERMINING A RENTAL PRICE FOR CROP LAND

## ✖ Lease forms

- + <http://www.mwps.org/stores/mwps/files/2010catalog.pdf> Guide and form
- + <http://agecon.uwyo.edu/riskmgt/legalrisk/CashFarmLease.pdf> Form only

## ✖ Machinery cost determination

- + <http://www.uwex.edu/ces/ag/teams/grains/>

# DETERMINING A RENTAL PRICE FOR CROP LAND

- ✗ Put agreement in writing!
  - + Assure better understanding of what was agreed on by both parties
  - + Serves as a reminder of specifics agreed on
  - + Serves as a legal document
    - ✗ Establish material participation/not
    - ✗ Estate settlement of either party
    - ✗ Settle disputes



# WRITTEN AGREEMENT; CONTINUED

- ✖ Who, what, when and how
- ✖ Property description
- ✖ Use of property
- ✖ Reservations
- ✖ Term of the lease



**<sup>UW</sup>Extension**

# EVALUATING COMPARATIVE RENTAL OPTIONS

## × Products

+ Corn Silage 7.37 TDM @ 92.57 = \$682.24

+ Crop Insurance = 40.09

× Total \$722.33/acre



# EVALUATING COMPARATIVE RENTAL OPTIONS

- ✕ Cash Rent
- ✕ Crop Share

# EVALUATING COMPARATIVE RENTAL OPTIONS

## ✕ Fixed Expenses

+ Land	\$73
+ Management	43
+ Labor	17
+ Machinery Deprec.	32
+ Machinery, Int, insur.	19

# EVALUATING COMPARATIVE RENTAL OPTIONS

## ✕ Expenses/acre; Variable

+ Fertility	120
+ Seed	65
+ Misc.	44
+ Herbicide	60
+ Insecticide	0
+ Fuel & Oil	19
+ Repairs/Main.	10
+ Int. Operating	7



# EVALUATING COMPARATIVE RENTAL OPTIONS

Contributions:      Cash Rent

	<u>Owner</u> (Lessor)	<u>Renter</u> (Lessee)
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Land	0%	100%
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Machinery	0	100
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Labor	0	100
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Management	0	100
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Variable Expenses	0	100
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% Contribution	?	?
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\$ Share	?	?
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# EVALUATING COMPARATIVE RENTAL OPTIONS

Contributions: Crop Share

	<u>Owner</u> (Lessor)	<u>Renter</u> (Lessee)
Land	100%	0%
Machinery	0	100
Labor	0	100
Management	0	100
Variable Expenses	0	100
% Contribution	?	?
\$ Share	?	?

# EVALUATING COMPARATIVE RENTAL OPTIONS

Contributions:	Cash/Share <u>Owner</u> (Lessor)	Cash/Share <u>Renter</u> (Lessee)
Land	\$ 0/73	\$ 73/0
Machinery	0	51
Labor	0	17
Management	0	43
Variable Expenses	0	325
% Contribution	0/15.28%	100/84.72%
\$ Share	\$73/ <b>103</b>	\$ 723/ <b>620</b>
Diff.	\$ <b>33</b> (Risk?)	\$ 103-73= <b>30</b> (Risk?)
Return OTC	\$ 73/73 +37	\$245/208



# EVALUATING COMPARATIVE RENTAL OPTIONS

Contributions: “50:50” Crop Share

	<u>Owner</u> (Lessor)	<u>Renter</u> (Lessee)
Land	\$ 73	\$ 0
Machinery	0	51
Labor	0	17
Management	0	43
Variable Expenses	163	163
% Contribution	46.2%	53.8%
\$ Share	\$334	\$389
Return OTC	\$ 98	\$115