



# MANAGING COST OF YOUR #1 EXPENSE: LAND COSTS ASSOCIATED WITH SOYBEAN PRODUCTION

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# LAND OWNED AND RENTED, ILLINOIS GRAIN FARMS

	Northern	Central	Southern
Owned	19%	15%	24%
Share-rent	21%	42%	36%
Cash-rent	60%	43%	40%

Source: Illinois FBFM, 2018



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# PROFESSIONAL FARM MANAGERS LEASES - 2019

- 40% Crop share leases
  - 25% Traditional
  - 5% Traditional with supplement cash rents
  - 10% Traditional with other adjustments
- 51% Cash rent leases
  - 28% fixed
  - 23% variable
- 9% Other (custom farming arrangements)



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# AVERAGE COSTS TO PRODUCE CORN CENTRAL ILLINOIS – 2014 TO 2018

	<u>\$ per Acre</u>	<u>Percent</u>	
Direct	\$394	45	← Fertilizer, Pesticides, Seed, Drying, Storage, Crop Ins
Power	\$126	15	← Fuel, Repairs, Depreciation, Machine Hire
Overhead	\$68	8	← Hired Labor, Building, Insurance, Interest
Land	<u>\$277</u>	<u>32</u>	← Average Cash Rent Used
Total	\$865	100	

Source: FBFM and U of Illinois



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# AVERAGE COSTS TO PRODUCE SOYBEANS CENTRAL ILLINOIS – 2014 TO 2018

	<u>\$ per Acre</u>	<u>Percent</u>	
Direct	\$191	30	← Fertilizer, Pesticides, Seed, Drying, Storage, Crop Ins
Power	\$108	17	← Fuel, Repairs, Depreciation, Machine Hire
Overhead	\$62	10	← Hired Labor, Building, Insurance, Interest
Land	<u>\$277</u>	<u>43</u>	← Average Cash Rent Used
Total	\$638	100	

Source: FBFM and U of Illinois



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# COSTS TO CONTROL LAND

- Own
  - Cash flow costs – Interest, principal and real estate taxes
  - Operating costs – Interest and real estate taxes
  - Economic costs – Real estate taxes and opportunity cost on investment
- Crop Share
  - Machinery and labor cost over landlord share of the acres
- Cash Rent
  - Cash rent paid



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# COSTS TO CONTROL LAND - OWN

- Own (\$11,000/ac., 35% down, 30 year @ 4.50%)

- Cash flow costs

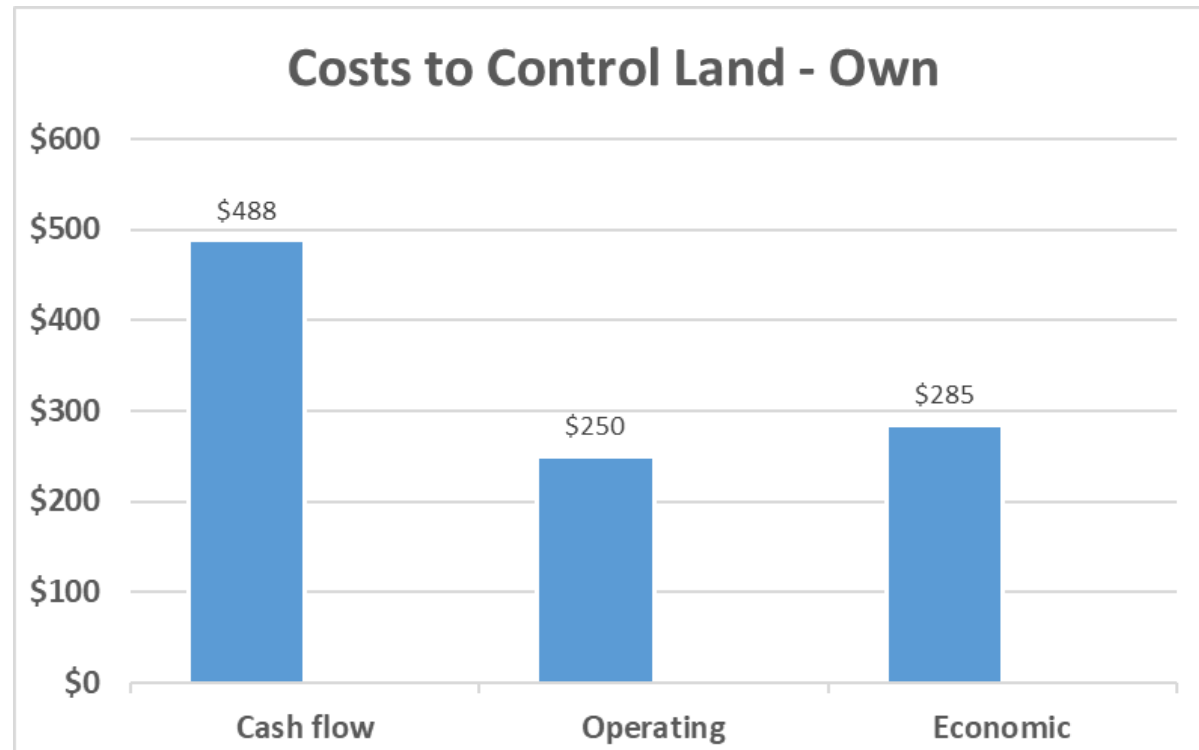
- Principal \$238
- Interest \$200
- RE Taxes \$50
- **Total \$488**

- Operating

- Interest \$200
- RE Taxes \$50
- **Total \$250**

- Economic

- Opp cost \$235
- RE Taxes \$50
- **Total \$285**



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# COST TO CONTROL LAND – CROP SHARE

- The costs the operator pays above the percentage share of the crop the operator receives.
  - Crop costs – generally no (Exception for example-pays 100% of seed cost)
  - Machinery costs – generally yes
  - Labor costs – generally yes
  - Might be supplemental rent charge

Machinery repairs	\$27.69	Operator labor	\$18.19
Machinery leases/hire	\$15.12	Paid labor	<u>\$33.32</u>
Fuel	\$20.18	Labor total	\$51.51
Machinery depreciation	<u>\$63.81</u>		
Machinery total	\$126.80	Total Mach. & Labor	\$178.31

Crop Share  
Cost / Acre

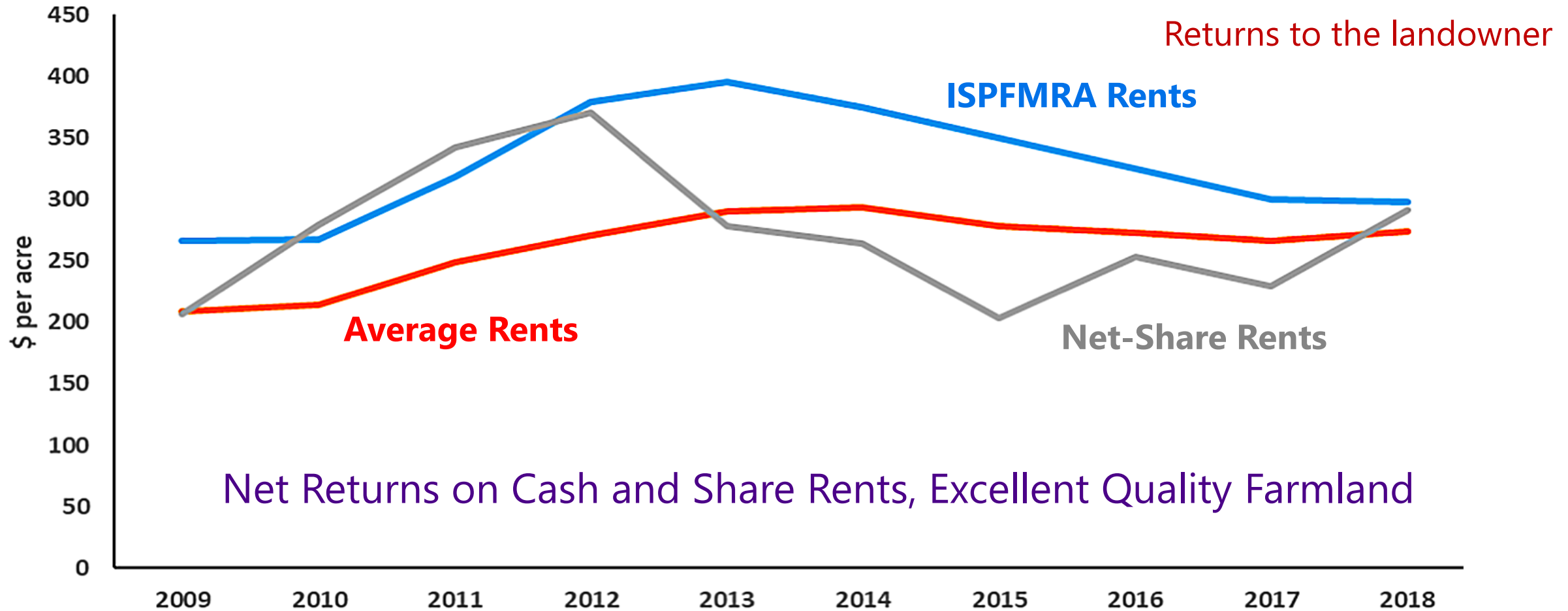



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# SHARE RENTS HAVE ADJUSTED TO CHANGING RETURNS IN AGRICULTURE



Net Returns on Cash and Share Rents, Excellent Quality Farmland



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# DETERMINING A CASH RENTAL RATE

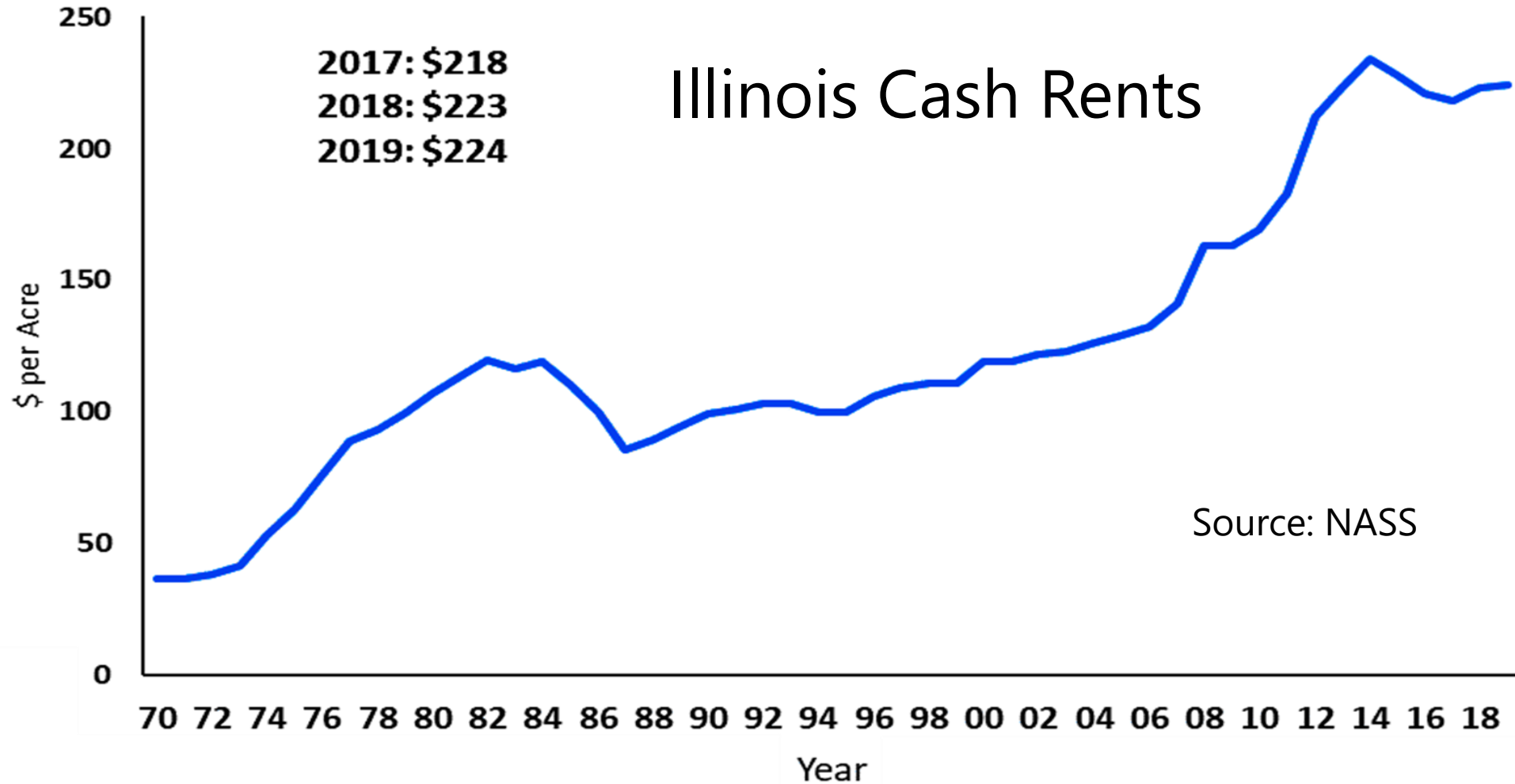
- **Cash rent market approach**
- Net return to operator and land
- Landowner's adjusted net-share rent
- Percent of gross returns
- Landowner's ownership cost
- Percent of land value
- Dollars per bushel of production
- Fixed bushel rent



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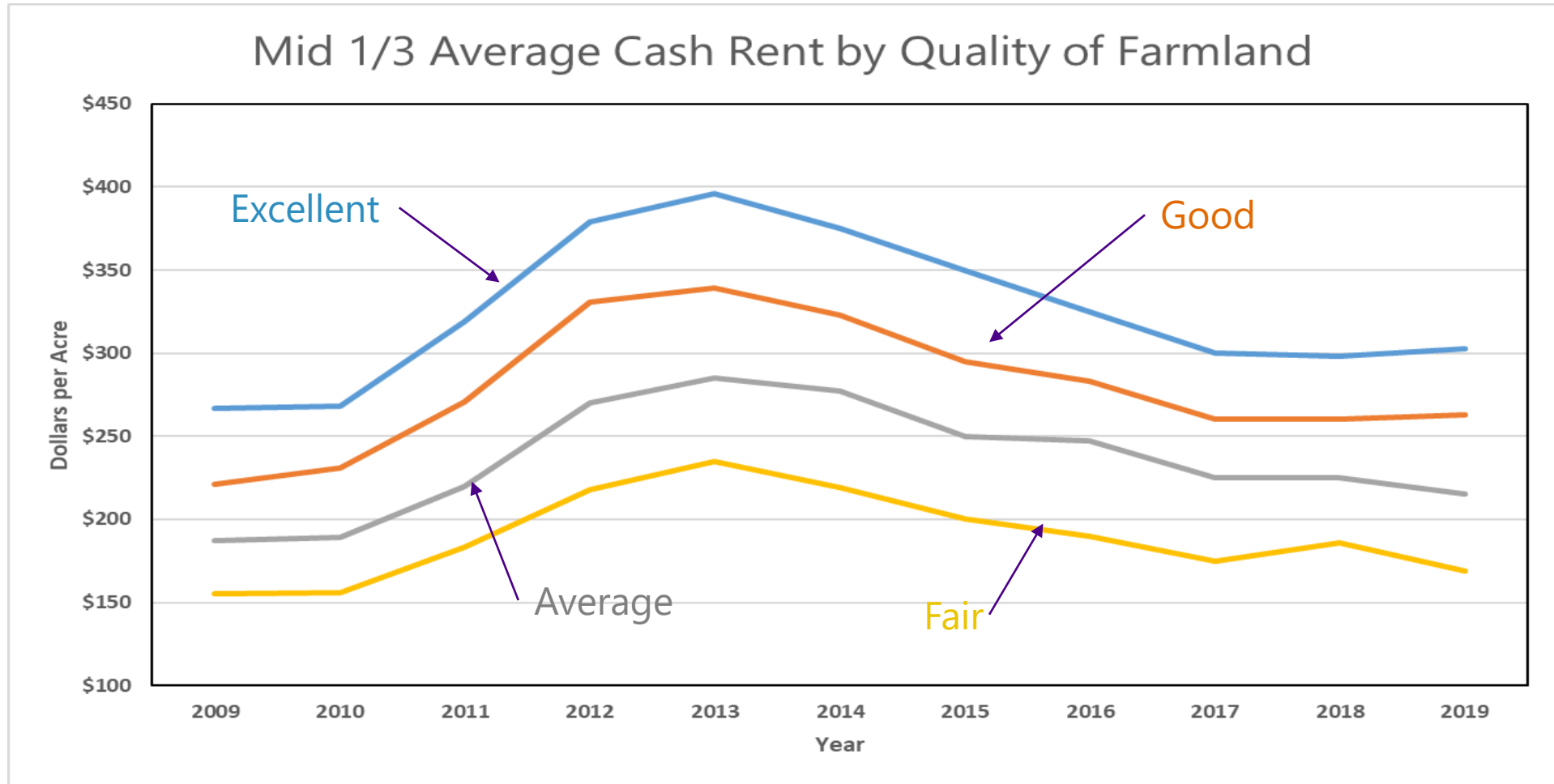
# COST TO CONTROL LAND – CASH RENT



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# CASH RENT BY LAND PRODUCTIVITY ON PROFESSIONAL MANAGED LAND



Source: Illinois Society of Professional Farm Managers and Rural Appraisers



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# COST TO CONTROL LAND – CASH RENT

Land Productivity	Rent in \$/acre	
	Actual 2019 Rent	Expected 2020 Rent
Excellent	302	298
Good	261	254
Average	212	205
Fair	170	167

Values represent rents on professionally managed farmland

Agricultural returns suggests lower cash rents, but cash rents are sticky

ILLINOIS SOCIETY OF PROFESSIONAL FARM MANAGERS AND RURAL APPRAISERS INDICATE VERY SLIGHT DECREASES IN 2020 CASH RENTS



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# DETERMINING A CASH RENTAL RATE

- Cash rent market approach
- **Net return to operator and land**
- Landowner's adjusted net-share rent
- Percent of gross returns



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# NET RETURN TO OPERATOR AND LAND

2020 Corn and Soybean Budgets  
Central Illinois - High Soil Productivity

	Corn after Soybeans	Soybeans after Corn	
Yield per Acre	214	63	← Trend Yields
Price per Bushel	\$3.90	\$9.10	
Crop Revenue	\$835	\$573	
ARC - PLC	\$0	\$0	← No MFP
Crop Insurance	\$0	\$0	
Gross Revenue	\$835	\$573	
Total non-land costs	\$590	\$355	← Includes \$70 depreciation
Operator and land return	\$245	\$218	← 50/50 Rotation = \$232

Source: University of Illinois



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# DETERMINING A CASH RENTAL RATE

- Cash rent market approach
- Net return to operator and land
- **Landowner's adjusted net-share rent**
- Percent of gross returns

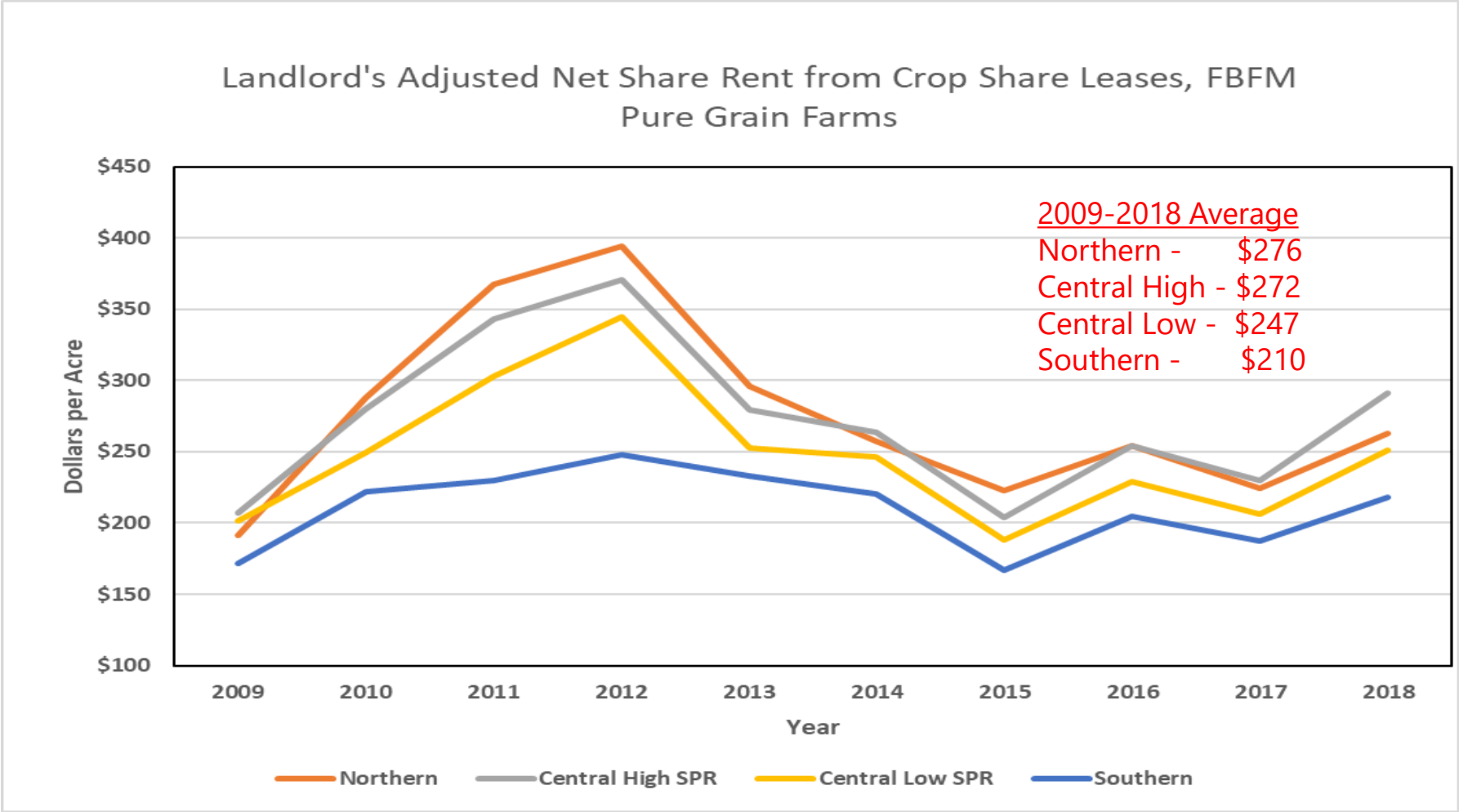


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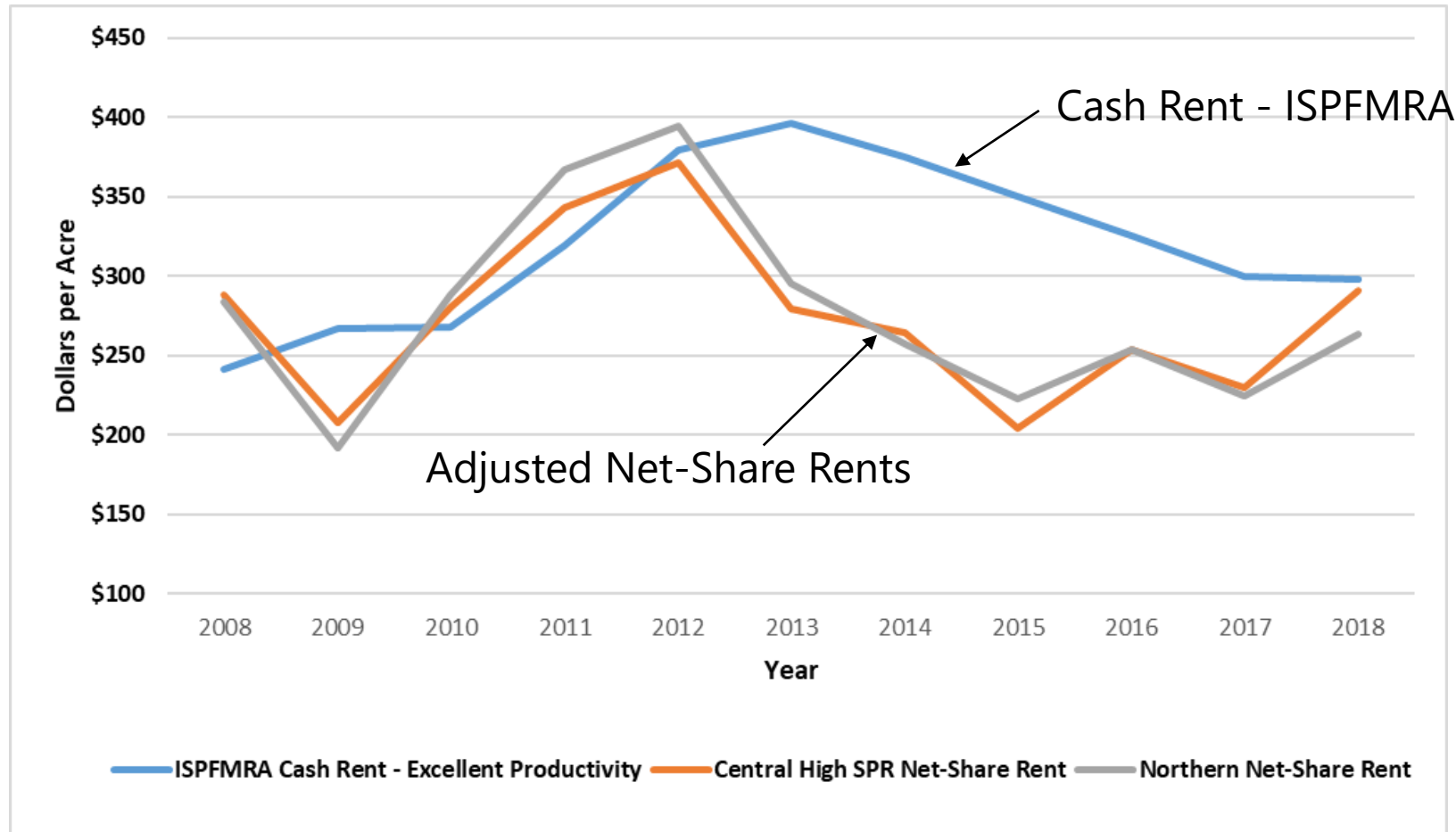
# LANDLORD'S ADJUSTED NET-SHARE RENT



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# CASH RENT COMPARED TO LLD'S ADJUSTED NET-SHARE RENT



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# DETERMINING A CASH RENTAL RATE

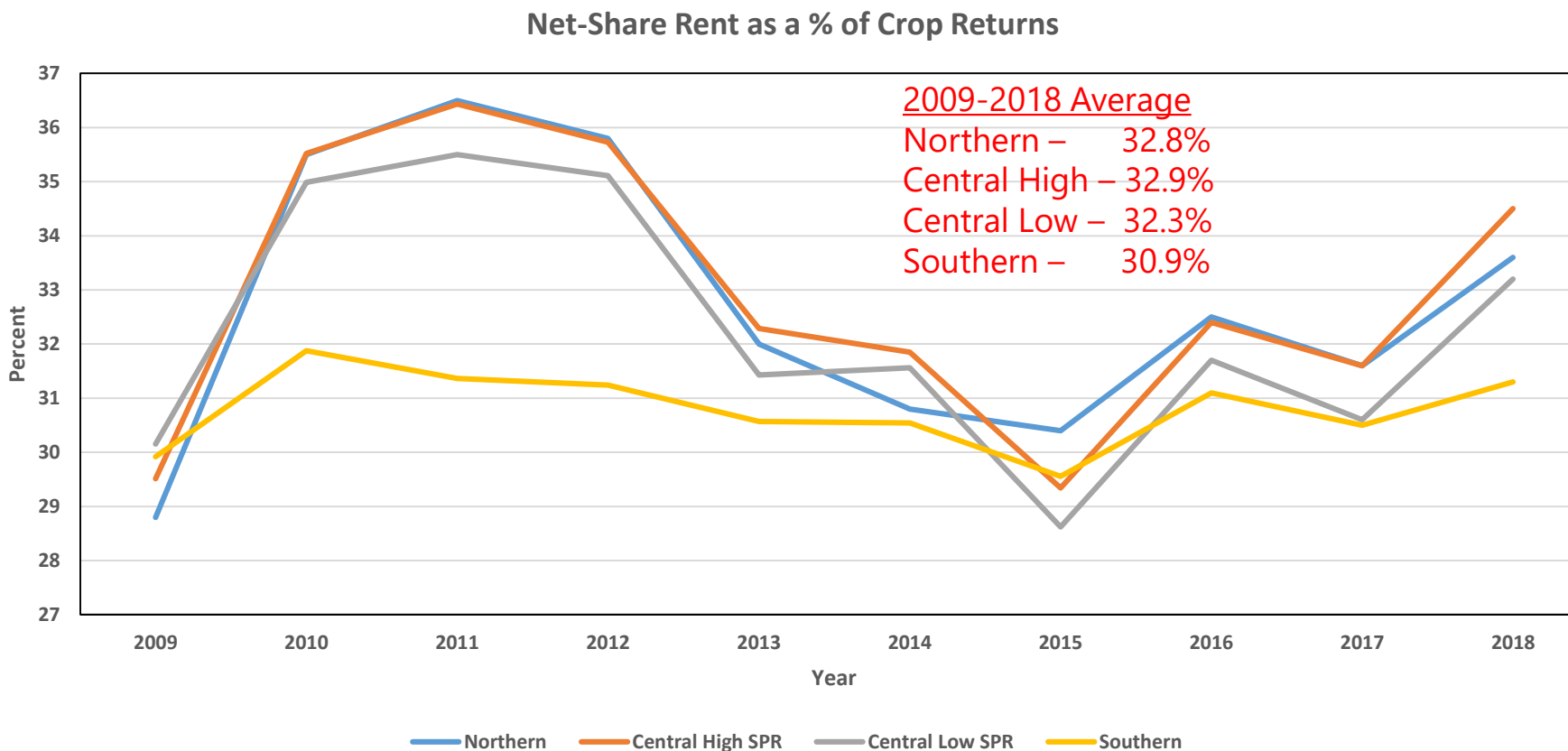
- Cash rent market approach
- Net return to operator and land
- Landowner's adjusted net-share rent
- **Percent of gross returns**



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# PERCENT OF GROSS RETURNS



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# VARIABLE CASH LEASES (PARAMETERS FOR HIGHER PRODUCTIVITY FARMLAND)

- **Base cash rent** (paid no matter what) -- \$200 per acre
- Pay a higher cash rent if crop revenue plus MFP times a rent factor exceed the **base cash rent**
- Rent factor (33% for corn and **40% for soybeans**)
- Yield is from the farm, Price is average on Wednesday from an agreed spot from Spring to Fall

**Yield = 65 bushels per acre, Price = \$9.00, Rent factor = .40,**  
**Rent = 65 x \$9.00 x .40 = \$234** (Higher than \$200, \$34 additional)



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# CONTROLLING LAND COSTS...CONSIDERATIONS

- Evaluate what “type” of lease is most profitable.
- Evaluate risk of different leases.
- Evaluate each lease you have, are certain farms/leases subsidizing others?
- Time to drop farms with leases that continually lose you money?
- Bid high to control land in hopes of better incomes, will rents stay the same?
- Is buying a consideration instead of high cash rent?



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# Thank You!!



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