Volume 9, Issue 2

February 2021

RightRisk™

RightRisk News

How Much Risk is Right for You?

Dates to Remember

Spring-planted crops sales deadline:
- March 15, 2021

Noninsured Crop Disaster Assistance Program (NAP) Deadline for springseeded forage and all other crops
- April 1, 2021

For more information see:
https://www.rma.usda.gov
https://www.fsa.usda.gov

Cash Rent vs. Mortgage Payments: Which is Best for Me?

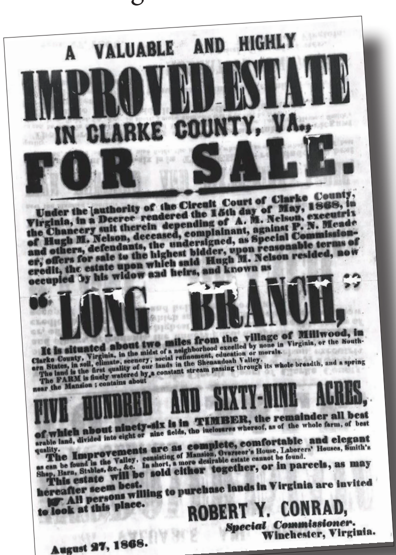
Land costs can make up a significant portion of the cost of production for many commodities. For example, see the 26 recently published University of Nebraska-Lincoln corn budgets for 2021 at **farm.unl.edu**. Land costs comprised an average of 30 percent of the total costs for growing corn across these estimates. Similarly, the summer pasture costs comprised 29 percent of the total annual herd costs across five cow-calf budgets published in 2019 at the same website.

Land costs place a tremendous burden on cash flow requirements and are a significant barrier impeding new and beginning producers from getting started in the farming or ranching business (Parsons, et al., 2019). However, land is a necessary and unique asset to a farming or ranching operation. How land is acquired for use in the operation can lead to dramatic shifts in the financial direction of the operation.

Purchasing land versus renting land

Agricultural land values continue to climb at a steady pace. The average value of farm real estate in the United States increased 73 percent from $1,830 per acre to $3,160 per acre (NASS) in the 15-year period from 2006 to 2020. The average value of farm real estate declined from the previous year in only two years during that span, and in both cases (2009 and 2016), the decline was modest.

Purchasing tracts of agricultural land usually requires substantial capital and, thus, usually involves debt financing. With this financing come the annual cash flow commitments to make land mortgage payments. In addition, ownership of the land commits future cash flows to cover land taxes. However, unlike equipment and other assets in the operation, land will not depreciate and generally appreciates in value over time as illustrated by the aforementioned NASS data.



A VALUABLE AND HIGHLY
IMPROVED ESTATE
IN CLARKE COUNTY, VA.,
FOR SALE.

Under the authority of the Circuit Court of Clarke County, Virginia, in a Decree rendered the 15th day of May, 1868, in the Chancery suit therein depending of A. M. Nelson, executrix of Hugh M. Nelson, deceased, complainant, against P. N. Meade and others, defendants, the undersigned, as Special Commissioner, offers for sale to the highest bidder, upon reasonable terms of credit, the estate upon which said Hugh M. Nelson resided, now occupied by his widow and heirs, and known as

"LONG BRANCH,"

It is situated about two miles from the village of Millwood, in Clarke County, Virginia, in the midst of a neighborhood excelled by none in Virginia, or the Southern States, in soil, climate, scenery, social refinement, education or morals.
The land is the first quality of our lands in the Shenandoah Valley.
The FARM is finely watered by a constant stream passing through its whole breadth, and a spring near the Mansion; contains about

FIVE HUNDRED AND SIXTY-NINE ACRES,

of which about ninety-six is in TIMBER, the remainder all best arable land, divided into eight or nine fields, the inclosures whereof, as of the whole farm, of best quality.
The Improvements are as complete, comfortable and elegant as can be found in the Valley, consisting of Mansion, Overseer's House, Laborers' Houses, Smith's Shop, Barn, Stables, &c., &c. In short, a more desirable estate cannot be found.
This estate will be sold either together, or in parcels, as may hereafter seem best.
All persons willing to purchase lands in Virginia are invited to look at this place.

ROBERT Y. CONRAD,
Special Commissioner,
Winchester, Virginia.

August 27, 1868.

Mortgage payments can be avoided by renting land rather than purchasing it. Like land values, cash rent can vary greatly by region, quality, and purpose of use. For example, in 2020, average cash rent per acre for pasture land, non-irrigated cropland, and irrigated cropland in Nebraska was $24, $149, and $240, respectively (NASS). In Colorado, these values were $6.20, $28, and $142, respectively, while in Wyoming they were $5, $16, and $82, respectively. In general, cash rent represents a one-year commitment. The value to be gained from that commitment is the net value of production derived from the land over that one year.

Cash flow differences

The purchase of agricultural land usually involves a substantial down payment and 15 to 30 years of mortgage payments involving principal and interest. For example,

the purchase of irrigated cropland in Nebraska at the statewide average price of $5,820 (NASS, 2020) financed for 30 years at 4 percent interest with a 20 percent down payment, would result in annual payments of $269.26 per acre over the life of the loan.

A majority of these payments would cover interest costs, representing a cash expense early in the life of the loan. Principal payments would make up a majority of the mortgage payment in later years. Principal payments are not a cash expense, but rather, are a repayment of the principal originally borrowed to make the purchase. Thought of another way, these payments represent an exchange of asset type from cash equity to land equity.

In summary, cash would flow out in the form of a $1,164 per acre down payment (20 percent) up front and $269.26 per acre per year for 30 years. Cash would also flow out annually for land tax payments. This amount varies by state but, in Nebraska, a rule-of-thumb estimate is 1.25 percent of the land value for annual real estate tax payments. This represents another $72.75 in annual cash outflow for land valued at $5,820 per acre.

On the other hand, irrigated Nebraska cropland rented for an average of $240 per acre in 2020. While this is considerably lower than the $342 per acre annual cash flow commitment necessary for the land purchase, all of the rent payment would be a cash expense. The $240 in cash rent represents about 4.1 percent of the land value. Furthermore, cash rental rates should be expected to increase as the land appreciates in value. Real estate tax payments will also increase as the land appreciates in value. However, the majority of the land ownership cash outflows, in the in the form of mortgage payments, would remain steady in the purchase scenario.

Table 1 outlines the financial implications when comparing cash rent to land mortgage payments under the assumption that land appreciates in value 3.7 percent per year as indicated by the 2006-2020 NASS data. Cash rent requires $102.01 fewer dollars per acre from cash flow; however, that same rent is only $18.99 in cash expenses under the purchase scenario in the first year. By year 13, cash rent would exceed the cash flow required to make the mortgage payment and pay the land taxes. Looking forward even further, in year 30 the mortgage payment remains steady, while land taxes have risen considerably due to the increased value of the land. However, the combined cash flow requirements for the mortgage payment and land taxes is 33 percent below cash rent and is about to drop considerably with the end of the mortgage.

Table 1. Annual mortgage payment versus cash rent under the assumptions that $5,820 per acre land is financed at 4 percent interest for 30 years with a 20 percent down payment, land taxes are 1.25 percent of land value, land value increases 3.7 percent per year, and cash rent is 4.1 percent of land value.

Year	0	1	2	3	…	28	29	30
Principal	1,164.00	83.02	86.34	89.79	…	239.37	248.94	258.90
Interest	-	186.24	182.92	179.47	…	29.89	20.31	10.36
Payment	1,164.00	269.26	269.26	269.26	…	269.26	269.26	269.26
Taxes	-	72.75	75.44	78.23	…	194.01	201.19	208.64
Cash Flow	1,164.00	342.01	344.69	347.48	…	463.27	470.44	477.89
Cash Expenses	-	258.99	258.36	257.69	…	223.90	221.50	218.99
Land Value	5,820.00	6,035.00	6,258.00	6,490.00	…	16,095.00	16,691.00	17,309.00
Liability	4,656.00	4,572.98	4,486.65	4,396.85	…	507.84	258.90	(0.00)
Equity	1,164.00	1,462.02	1,771.35	2,093.15	…	15,587.16	16,432.10	17,309.00
Cash Rent	-	240.00	258.00	268.00	…	664.00	688.00	714.00

Sources of Risk

There are no guarantees that land will appreciate in value. However, a majority of the land purchase scenario is known with certainty. Increasing land taxes place growing pressure on cash flow requirements, but the mortgage payment remains fixed under the assumption of a fixed interest rate. The biggest risk in financing a land purchase is in yields, market prices, and other variable expenses that affect net operating returns. Downward trends in net operating returns are also likely to have a negative effect on land values. Reduced cash flows could lead to an inability to cover mortgage payments and liquidation of the land asset or the need for refinancing with less favorable terms.

Cash rent of land is also subject to the risk of uncertainty in net operating returns. Although there is no risk of loan foreclosure, there exists the same risk of no access to the land. This is a financial risk to the operation as it seeks to efficiently spread investment in resources across an appropriately-sized land base. The impact of inflation on cash rent is direct and complete. Land taxes likely would be impacted if the land were purchased but mortgage payments would remain steady.

Risk Management Strategies

Risk management strategies are generally designed to do one of four things: (1) avoid the risk; (2) transfer the risk outside the business; (3) control the risk within the business; or, (4) accept the risk as a part of doing business. The first thing to point out is that interest rate uncertainty can be avoided by locking in a fixed rate on a land mortgage. Some of the revenue risks associated with yield and price uncertainties can be transferred outside the business through crop insurance policies under both land purchase and cash rent scenarios. Under a rent situation, some risk might also be transferred by switching from a cash rent to a crop share agreement. This option to control risk is not available for a land purchase. However, many other options are available to control risk within the business, including: diversification, good production practices, as well as maintaining effective cash reserves to help meet cash flow needs.

References:

Parsons, J., Redfearn, D. and Drewnoski, M. 2019. "Ag Lenders Panel Provides Insight into Beef Systems Initiative." University of Nebraska-Lincoln, Cornhusker Economics. August 28, 2019.

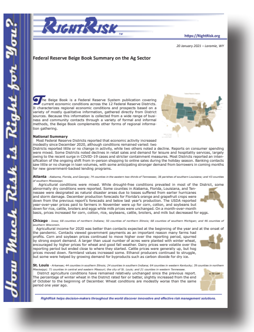
NASS, National Agricultural Statistics Service, nass.usda.gov.

~ Other RightRisk News ~

News Release - Jan. 4 | RightRisk

RightRisk Contributes to UW Extension - Ag & Hort Convention 2021

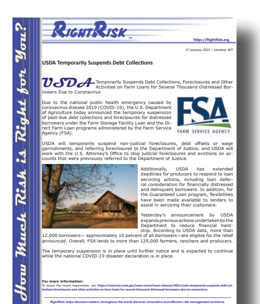
RightRisk is offering a number of presentations as part of the University of Wyoming Extension Agriculture and Horticulture Online Convention. More than 50 presentations are scheduled during the University of Wyoming Extension agriculture and horticulture online conference Jan. 4-15 . . .



News Release - Jan. 20 | RightRisk

Federal Reserve Beige Book Summary on the Ag Sector

The Beige Book is a Federal Reserve System publication covering current economic conditions across the 12 Federal Reserve Districts. It characterizes regional economic conditions and prospects based on a variety of mostly qualitative information, gathered directly from District sources. The latest update was posted January 13th . . .



News Release - Jan. 27 | RightRisk

USDA Temporarily Suspends Debt Collections

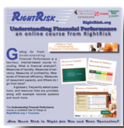
Due to the national public health emergency caused by coronavirus disease 2019 (COVID-19), the U.S. Department of Agriculture today announced the temporary suspension of past-due debt collections and foreclosures for distressed borrowers under the Farm Storage Facility Loan and the Direct Farm Loan programs administered by the Farm Service Agency (FSA) . . .

For more see: RightRisk.org\News

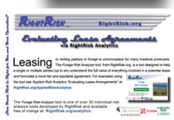
RightRisk.org

RightRisk.org is a rich resource for operators looking to improve their response to risk. Currently the site offers online risk management courses spanning topics from recordkeeping to enterprise risk strategies, and from planning a lasting legacy to planning your taxes for next year. Other resources available include: Risk Analytics Tools to evaluate risk management decisions; Publications covering Risk Management Profiles; Applied Risk Analytics, and Risk Concepts; Risk Controls for managing risk; Recorded Presentations; and Links to other resources help you go even deeper.

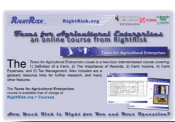
Take a look to discover innovative and effective risk management solutions. For more information, see **RightRisk.org**



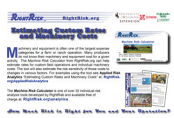
January 5 | Social Media Post
Understanding Financial Performance



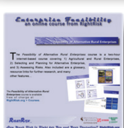
January 7 | Social Media Post
Evaluating Lease Agreements via RightRisk Analytics



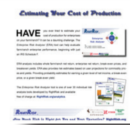
January 12 | Social Media Post
Taxes for Agricultural Enterprises



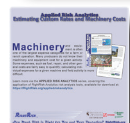
January 14 | Social Media Post
Estimating Custom Rates and Machinery Costs



January 19 | Social Media Post
Enterprise Feasibility



January 21 | Social Media Post
Estimating Your Cost of Production



January 26 | Social Media Post
Estimating Custom Rates and Machinery Costs

January 28 | Social Media Post
Evaluating Pasture, Rangeland, Forage - Rainfall Index Coverage

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- *Education*
- *Coaching*
- *Research*

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How much risk is right for you and your operation?

EXTENSION
COLORADO STATE UNIVERSITY EXTENSION
UW Extension