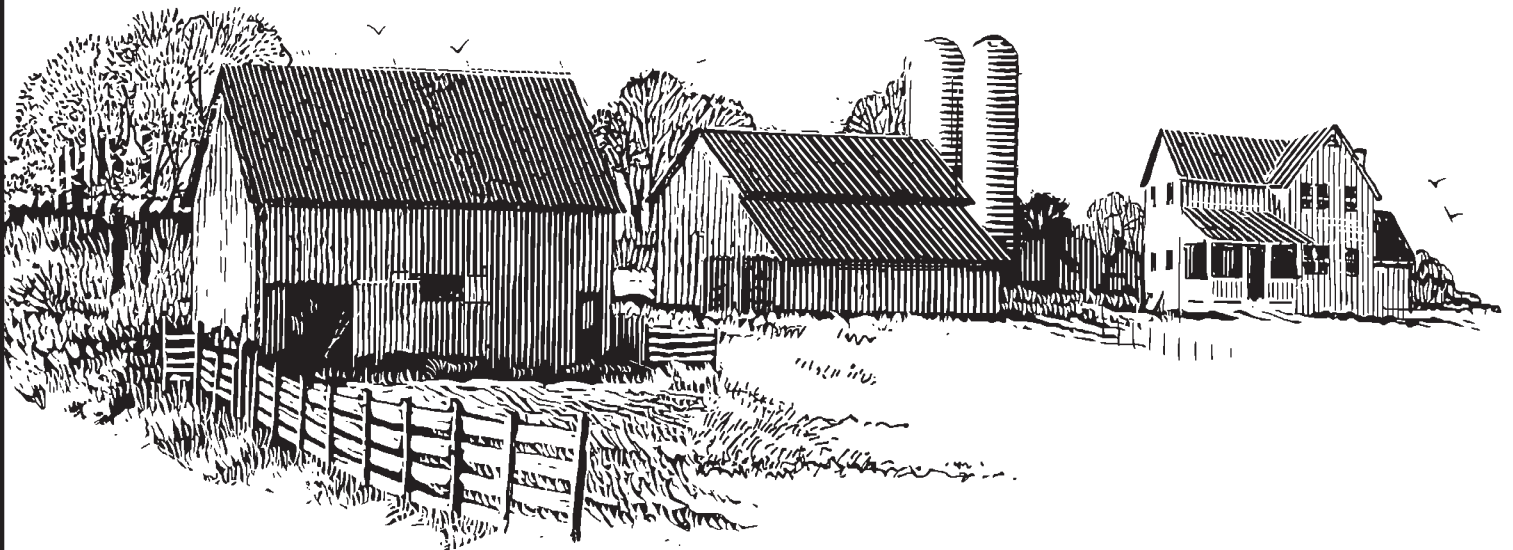


A Resource Guide for Beginning Farmers in Oklahoma



**E-982
Oklahoma State University
August 2021**

Table of Contents

Part 1. What Do You Hope to Achieve with the Farm?	1
Part 2. Selecting Appropriate Enterprises	3
Part 3. Financial Planning for the New Farm	7
Part 4. Acquiring the Capital for Your New Farm	11
Part 5. Finding Opportunities for Education and Training	18
Part 6. Locating Land for Farming	24
Part 7. Understanding Land Use Regulations and Restrictions	26
Part 8. Gaining Access to Markets	29
Part 9. Tax Considerations	32
Part 10. Government Programs	36
Appendix	44

References within this publication to any specific commercial product, process, or service by trade name, trademark, service mark, manufacturer, or otherwise does not constitute or imply endorsement by Oklahoma Cooperative Extension Service. Any omissions in lists of organizations is unintentional. If you have a suggestion for an addition for future editions, please email damona.doye@okstate.edu or contact the Agricultural Economics Department at 405-744-9836.

A Resource Guide for Beginning Farmers in Oklahoma

Courtney Bir
Extension Specialist for Farm Management

Amy Hagerman
Extension Specialist for Agriculture and Food Policy

Roger Sahs
*Extension Specialist for Enterprise Budget and Land
Values*

Brent Ladd
Assistant Extension Specialist

*Based on a previous version
by Suzette Barta, Damona Doye and Jody Campiche*

Oklahoma State University
Department of Agricultural Economics

Oklahoma Cooperative Extension Service
Division of Agricultural Sciences and Natural Resources

2021

Part 1. What Do You Hope to Achieve with the Farm?

If you are considering becoming a farmer or rancher in Oklahoma, then you are about to embark on a journey. As with any long trip, your first step is to plan where you will go and how you will get there. The OSU Extension at Oklahoma State University has developed this resource guide to help beginning farmers understand the steps needed to achieve the dream of having their own farm.

The first and most important step you should take in beginning a farm is to carefully research the property and planned enterprises before investing. Attend educational meetings (such as OSU Extension programs) before properties are purchased. Become acquainted with professionals such as the local Extension Educator–Agriculture, who can help. The OSU Extension website, extension.okstate.edu, provides links to county offices, publications and many other resources.

Buyers often grossly underestimate the technical difficulties of farming and ranching. People mistakenly think, “Anybody can do it.” This is far from true. Farmers and ranchers need to know about growing crops and forages (fertilization, management), managing livestock (nutrition, health, genetics), marketing, general business management (accounting, taxes), legal issues and more. Furthermore, farmers and ranchers need reliable sources of information. Prospective landowners often get advice from the wrong people. It is important to seek assistance from unbiased sources who are not selling something or taking advantage of the inexperienced person.

While conducting research about the physical property and possible enterprises, consider your family and business values along with the mission and goals for the farm. What is it that you are setting out to do? Is it to become a landowner, building a land base on which you can retire? Is it to generate more income? How much? Or, do you want to become a noted livestock producer regardless of the cost? Your goal for a new farm may be to enjoy a rural lifestyle that provides an opportunity to work outdoors plus have more space for hobbies and projects without expecting to generate additional income. Or your goal may be to establish a business operation that is intended to grow to support one or more families over time. Developing specific realistic goals can help the beginning farmer in several ways.

1. Goals provide the framework for developing more detailed plans, including identifying the resources needed to have a successful outcome.
2. Having a well thought out plan is important for communications with persons providing financing for the operation, whether a commercial lender or family member.
3. Goals can serve as reference points to help you monitor progress once a business plan is implemented.
4. When faced with uncertainty, goals can assist you in making decisions.
5. Goals can serve as tools for motivating your family or farm management team toward success.

Because the farm business often involves the whole family, it is best for the goal-setting process to involve each member of the family. The family and the business are generally intertwined; thus, family goals and business goals should be set jointly. Goals should be challenging, yet achievable and specific enough that you can write them down and measure your progress toward them.

The fact sheet *Goal Setting for Farm and Ranch Families* outlines some basic steps for setting goals and includes a goal-setting worksheet. This publication, as well as others relating to farm and ranch management, is located online at the following address: extension.okstate.edu/fact-sheets/goal-setting-for-farm-and-ranch-families.html. All documents are available to download free of charge in PDF format. If you are interested in a more comprehensive guide,



Goal Sheet:

[extension.okstate.edu/
fact-sheets/goal-setting-
for-farm-and-ranch-
families.html](http://extension.okstate.edu/fact-sheets/goal-setting-for-farm-and-ranch-families.html)

OSU Extension
Publication: AGEC-244

an excellent resource is *Building a Sustainable Business: A Guide to Developing a Business Plan for Farms and Rural Businesses*. It can be downloaded in whole at: sare.org/Learning-Center/Books/Building-a-Sustainable-Business.

Part 2. Selecting Appropriate Enterprises


Before you go much further, it is crucial to identify the type of farming enterprise you want. While Oklahoma is known as a wheat and cattle state, Oklahoma Agricultural Statistics Service (OASS) data shows more than 16 commodities with sales of more than \$2 million each in 2019. Table 1 identifies the rank and value of production for Oklahoma commodities for 2019. Table 2 shows livestock inventory numbers for Oklahoma for 2016 through 2019. Table 3 presents crop acreage, yield and production for Oklahoma for 2019. The 2020 bulletin from the OASS is available online at https://www.nass.usda.gov/Statistics_by_State/Oklahoma/Publications/Annual_Statistical_Bulletin/ok-bulletin-2020-web.pdf. In addition to commodity specific data, the bulletin contains information such as average rainfall, average temperature and pasture condition.

In terms of acreage harvested, winter wheat was the top crop, followed by all hay varieties. Figure 1 charts winter wheat production by county in Oklahoma in 2019. For 2019, winter wheat averaged 40 bushels per acre, and all hay averaged 1.98 tons per acre. Crop yields and stocking rate vary considerably from county to county due to differences in soils and climates and from year to year as weather and other conditions change. In livestock numbers, chickens totaled about 4.247 million head, all cattle and calves totaled 5.2 million head and all hogs and pigs totaled 2.28 million head. In value of production, cattle and calves ranked first in the state with a production value of \$2.578 billion. Hogs and pigs ranked second in the state with a production value of \$965 million.

These statistics may leave you asking yourself what to produce. What is appropriate will certainly depend on the land resource base you are considering, including soil type, geographical location, climate and past use. It may also depend on the human resources (labor and management) available to you. The availability of a market for your product and the ability to finance operations are also critical.

Economists at Kentucky Cooperative Extension Service, Tim Woods and Steve Isaacs, emphasize that new or expanding enterprises should not focus on what to produce, but should instead concentrate on how to select the right enterprise. They advocate a more thorough approach because, in their experience, success or failure often depends on a lot more than just the choice of what to produce. They suggest these six factors to drive the decision: profitability, resources, information, marketing, enthusiasm and risk. A Primer for Selecting New Enterprises for Your Farm, by Woods and Isaacs, is available online at ageconsearch.umn.edu/record/42316/files/ext2000-13.pdf. The publication contains descriptions of the six decision factors, as well as detailed worksheets to help the new farmer/rancher raise some important questions regarding their potential new enterprise. The authors suggest printing multiple copies of the PRIMER so that you can work through the worksheets for more than one type of enterprise.

If profitability is a goal for the operation, consider developing a budget for individual enterprises (for example, stockers, goats or grapes) that maps out the resources needed, as well as projected income and expenses. Oklahoma State University offers spreadsheets to generate budgets for the following enterprises: alfalfa, annual forage, blackberries, blueberries, canola, corn, corn silage, cotton, cow-calf, grain sorghum, grapes, improved pecans, meat goats, native pecans, peaches, peanuts, perennial forages, rye, soy-beans, stockers, sunflowers, stocker goats, watermelon and wheat.

 **2020 Bulletin:**
https://www.nass.usda.gov/Statistics_by_State/Oklahoma/Publications/Annual_Statistical_Bulletin/ok-bulletin-2020-web.pdf

**Table 1. Rank and value of production,
Oklahoma commodities, 2019.**

Rank	Item	Value (\$ Millions)
1	Cattle and calves	2,578
2	Hogs and pigs	965
3	Broilers	729
4	Hay	645
5	Winter wheat	473
6	Cotton and cottonseed	212
7	Corn for grain	185
8	Milk	148
9	Soybeans	107
10	Eggs	82
11	Sorghum for grain	46
12	Pecans	27
13	Peanuts	13
14	Rye	12
15	Canola	3
16	Oats	3

Source: Oklahoma Agricultural Statistics Service 2020.

**Table 2. Livestock inventory for Oklahoma,
January 1, 2016 – January 1, 2020.
(Presented by 1,000 Head)**

Year	All Cattle & Calves	Beef Cows	Milk cows	All Sheep & Lambs	All Hogs & Pigs¹	Chickens^{1,2}	Bees³
2016	4,800	1,923	37	46	2,110	4,137	
2017	5,000	2,093	37	48	2,160	3,970	
2018	5,100	2,088	42	54	2,200	4,286	17
2019	5,300	2,150	40	50	2,200	4,476	21
2020	5,200	2,099	41	52	2,280	4,247	

(1) December 1 previous year.

(2) Excludes commercial broilers.

(3) Colony inventory

Source: Oklahoma Agricultural Statistics Service 2020.

Table 3. Crop acreage, yield and production; Oklahoma, 2019.

Commodity	Planted Purpose Acres	Harvested Acres	Yield	Production	Price per Unit	Value of Production Dollars
Wheat Winter All	4,200,000	2,750,000	40 bus	110,000,000 bus	4.31 \$/bu	473,000,000
Hay All (Dry)		3,005,000	1.98 tons	5,935,000 tons	106 \$/ton	644,945,000
Hay Other (Dry)		2,800,000	1.90 tons	5,320,000 tons	100 \$/ton	537,320,000
Corn For Grain	370,000	330,000	137 bus	45,210,000 bus	4.1 \$/bu	185,361,000
Alfalfa Hay (Dry)		205,000	3.00 tons	615,000 tons	171 \$/ton	107,625,000
Soybeans	465,000	440,000	29 bus	12,760,000 bus	8.40 \$/bu	107,184,000
Cotton Upland	640,000	460,000	688 lbs	659,000 bales ¹	0.597 \$/lb	183,398,000
Canola	35,000	21,000	1,410 lbs	29,610,000 lbs	10.60 \$/cwt	3,139,000
Peanuts For Nuts	15,000	14,000	4,100 lbs	57,400,000 lbs	0.235 \$/lb	13,489,000
Sorghum For Grain	300,000	260,000	51 lbs	13,260,000 lbs	6.15 \$/cwt	45,667,000
Cotton Seed				191,000 tons	152 \$/ton	29,032,000
Rye	260,000	55,000	27 bus	1,485,000 bus	8.25 \$/bu	12,177,000
Oats	100,000	25,000	50 bus	1,250,000 bus	2.10 \$/bu	2,875,000
Corn for Silage		20,000	13 tons	260,000 tons		
Sorghum For Silage		16,000	10 tons	160,000 tons		

¹ Production in 480-pound bales

Source: Oklahoma Agricultural Statistics Service 2020.



**A Primer for
Selecting
New Enterprises
for Your Farm:**
[uky.edu/Ag/AgEcon/
pubs/ext_aec/
ext2000-13.pdf](http://uky.edu/Ag/AgEcon/pubs/ext_aec/ext2000-13.pdf)

Part 3. Financial Planning for the New Farm

One of the most basic issues you must address if you are considering farming is how much you expect the farm to contribute to your family's living expenses.

- Farm will not contribute to family's living expenses. (Off-farm income required.)
- Farm will provide a portion of the family's living expenses. (Off-farm income required.)
- Farm will provide all of the family's living expenses.

Land purchasers frequently overestimate the income potential from agricultural enterprises. If you do not yet have a handle on your farm's financial potential, then you need to assemble a financial plan for your operation. In most cases, a sound financial plan is a prerequisite to obtaining loans. A typical financial plan will include the following:

1. budgets for individual enterprises (for example, cow-calf, wheat and stocker);
2. cash flow plan;
3. income statement; and
4. balance sheet.

Fact sheets are available to assist producers in developing financial plans and interpreting financial statements. All of the following publications are free of charge at local Extension offices. They are also available online at extension.okstate.edu/fact-sheets/index.html.

- AGEC-751, *Developing a Cash Flow Plan*
- AGEC-752, *Developing a Balance Sheet*
- AGEC-753, *Developing an Income Statement*
- AGEC-790, *Evaluating Financial Performance and Position*
- AGEC-935, *Capital Leases*

Other OSU fact sheets that may be helpful in developing a business plan include:

- AGEC-243, *Using Enterprise Budgets in Farm Financial Planning*
- AGEC-302, *Information Systems for Oklahoma Farmers*
- CR-205, *Oklahoma Farm and Ranch Custom Rates*
- CR-216, *Oklahoma Pasture Rental Rates*
- CR-230, *Oklahoma Cropland Rental Rates*

The data in Tables 4 and 5 are presented to assist you in forming realistic financial expectations. In 2012, the number of farms in the state totaled 80,245 (Census of Agriculture). Sixty-five percent of the farmers reported they had at least some off-farm work for the year, and 58% reported farming was not their primary occupation. In terms of value of sales, 75% of the farms reported farm sales of less than \$25,000. The average market value of sales per farm, for all agricultural products, was \$88,848. The average expense for total production per farm was \$60,340. Net cash farm income statistics show that in 2012, 62.05% of farms experienced a loss.

Other farm financial data are available from the Economic Research Service of the U.S. Department of Agriculture (ERS) (ers.usda.gov). For example, Table 5 presents costs and returns for wheat production and cow-calf production for the Prairie Gateway Region (western two-thirds of Oklahoma plus Kansas, southern Nebraska, eastern Colorado, eastern New Mexico and much of Texas) for 2014. For wheat production in 2014, the gross value of production was \$175.89 per planted acre. Total operating costs were \$111.59 per planted acre; total costs were \$278.15 per



Fact Sheets:

[extension.okstate.edu/
fact-sheets/index.html](http://extension.okstate.edu/fact-sheets/index.html)

planted acre. The value of production less operating costs equaled \$64.37 per planted acre; the value of production less total costs equaled -\$102.91 per planted acre. For cow-calf production in 2014, the gross value of production was \$1,190.74 per bred cow. The value of production less operating costs equaled \$418.72 per bred cow. The total costs were \$1,410.10 per bred cow, for a value of production less total costs of -\$219.36 per bred cow. Averages mask the variability in costs and returns that occur on individual farms. However, the averages do point out that agricultural enterprises are not always profitable.

Enterprise Budget Software

OSU Enterprise Budgets are Excel spreadsheets designed to help estimate production costs and returns while representing the management practices typical of an area. The software provides users access to important agricultural references during an "interactive" budget-building process. Spreadsheets incorporate historical data and specialist recommendations while allowing modification by the user. Examples of historical data include area yields and average prices. Examples of specialist recommendations include fertilizer requirements for specified forage or grain yields. Links to Internet databases and references point users to additional information.

Appendix Tables 1 through 3 show sample budgets for wheat, cow-calf and stocker enterprises. Note: actual income and expenses may vary greatly from operation to operation. Hence, it is important to customize budgets to match individual situations. The budget re-port summarizes key production items and prices, operating and fixed costs, and break-even prices and yields.

Table 4.
Data from 2012 and 2017 Census of Agriculture for Oklahoma.

	2017	2017	2012	2012
	% of Total		% of Total	
	Farms		Farms	
Number of Oklahoma farms	78,531	4% ¹	80,245	4% ¹
<i>Off Farm Work</i>				
Farmers with no off-farm work	38,387	36%	27,846	35%
Farmers with some off-farm work		20%		19%
Farmers with 200 or more days off-farm work	47,178	44%	36,970	46%
<i>Operator by Primary Occupation</i>				
Farming	42,554	40%	33,790	42%
Other	63,722	60%	46,455	58%
<i>Number of Farms by Value of Sales</i>				
Less than \$2,500	29,701	38%	29,794	37%
\$2,500 to \$4,999	7,644	10%	8,032	10%
\$5,000 to \$9,999	9,627	12%	9,680	12%
\$10,000 to \$24,999	11,574	15%	12,437	15%
\$25,000 to \$49,999	6,888	9%	7,070	9%
\$50,000 to \$99,999	4,947	6%	5,198	6%
\$100,000 to \$499,999	6,010	8%	5,893	7%
\$500,000 or more	2,140	3%	2,141	3%
<i>Average Market Value of Sales per Farm</i>				
All agricultural products sold	\$95,065		\$88,848	
Crops (including greenhouse)	\$59,151		\$62,651	
Livestock/poultry & products	\$115,543		\$107,312	
<i>Selected Farm Expenses, Average per Farm</i>				
Total production expenses	\$84,602		\$83,280	
Livestock/poultry purchased or leased	\$62,630		\$68,807	
Breeding livestock purchased or leased	\$14,634		\$10,854	
Feed	\$26,218		\$32,717	
Fertilizer, lime, soil conditioners	\$10,295		\$12,227	
Gasoline, fuel, oils	\$4,320		\$4,531	
Hired farm labor	\$20,044		\$17,100	
Interest Expense	\$11,078		\$9,445	
Chemicals	\$6,082		\$4,837	
<i>Net Cash Farm Income of Operations</i>				
Average per farm/dollars	16,454		11,899	
Farms with net gains ¹ /number	26,057	33%	30,466	38%
Average per farm/dollars	87,327		60,068	
Farms with net losses/number	52,474	67%	49,799	62%
Average per farm/dollars	18,740		17,550	

¹ Percentage of total U.S. farms.

Farms with total production expenses equal to total of market value of agricultural products sold, government payments, and farm-related income are included as farms with gains.

Source: USDA Census of Agriculture 2017: nass.usda.gov/Publications/AgCensus/2017/Full_Report/Volume_1,_Chapter_1_State_Level/Oklahoma/okv1.pdf

Table 5.

**Costs and returns for wheat production and cow-calf production,
Prairie Gateway Region.* Dollars per planted acre or per cow.**

Cow/Calf Production	2020	2019	Wheat Production	2020	2019
<i>Gross value of production</i>			<i>Gross value of production</i>		
Calves	458.61	452.91	Primary product:		
Stockers and Yearlings	120.27	120.27	Wheat grain	155.04	187.27
Other Cattle	108.06	104.36	Secondary Product: silage/ straw/grazing	4.05	5.04
Total gross value	686.94	677.54	Total, gross value of Production	159.54	192.30
<i>Operating costs</i>			<i>Operating Costs</i>		
Purchased Feed	118.56	115.54	Seed	10.13	10.29
Homegrown Harvested Feed	117.40	139.46	Fertilizer	30.64	30.50
Grazed feed	120.98	118.71	Chemicals	9.88	10.49
Total Feed Costs	356.94	373.71	Custom Operations	16.16	16.42
<i>Other</i>			Fuel, Lube, and Electricity	11.82	12.21
Cattle for Backgrounding	86.46	85.38	Repairs	24.37	24.12
Veterinary and Medicine	29.41	29.11	Purchased Irrigation Water and Straw Baling	0.16	0.17
Bedding and Litter	0.78	0.77	Interest on Operating Inputs	0.22	1.08
Marketing	13.16	13.03	Total Operating Costs	103.68	105.28
Custom Services	12.22	12.10	<i>Allocated Overhead</i>		
Fuel, Lube, and Electricity	32.71	33.53	Hired Labor	3.35	3.38
Repairs	40.78	40.39	Opportunity cost of Unpaid Labor	19.08	18.86
Interest on Operating Capital	1.20	6.05	Capital Recovery of Machinery and Equipment	87.56	87.98
Total Operating Cost	573.66	594.07	Opportunity cost of Land (Rental Rate)	41.23	41.64
<i>Allocated Overhead</i>			Taxes and Insurance	4.50	4.55
Hired Labor	48.17	47.45	General Farm Overhead	6.18	6.24
Opportunity Cost of Unpaid Labor	458.08	435.44	Total Allocated Overhead	161.90	162.65
Capital Recovery of Machinery and Equipment	273.58	270.98	Total Costs Listed	265.58	267.93
Opportunity Cost of Land (Rental Rate)	0.25	0.25	Value of Production Less Total Costs Listed	-106.04	-75.63
Taxes and Insurance	21.57	21.35	Value of Production Less Operating Costs	55.86	87.02
General Farm Overhead	40.08	39.46			
Total Allocated Overhead	841.73	814.93			
Total Costs Listed	1415.39	1409.00			
Value of Production less Total Costs Listed	-728.45	-731.45			
Value of Production less Operating Costs	113.28	83.47			

* Includes most of Oklahoma.

Source: Economic Research Service, U.S. Department of Agriculture.

Additional information on the budget software is on the OSU Enterprise Budget website: extension.okstate.edu/programs/farm-management-and-finance/budgets/

Part 4. Acquiring the Capital for Your New Farm

Whether farming is your hobby or your business, there is no doubt that it can be expensive. Capital is required to purchase or lease assets and to pay for operating expenses. For example, you may need capital to buy or lease land, buildings, machinery or livestock. You will also need funds for operating expenses including labor, feed costs, fuel and equipment, repairs and maintenance, utilities, veterinary expenses, seed, fertilizer, etc. Obviously, this is not an exhaustive list. The important question is, *How will you acquire the assets for your farm?* Buyers often purchase either too much or the wrong type of equipment, and they think it's necessary to own a new pickup, trailer, tractor, ATV, etc. These vastly increase the cost of production and eliminate potential for profit. Also, owners tend to overlook the cost of hired labor. Carefully consider every purchase. Make sure it is really needed. If it is, can it be rented or borrowed instead of bought? Be frugal.

Trying to make land payments with income generated by a farm is rarely realistic. Table 6 shows annual loan payments for a range of land prices and interest rates. In 2020, Oklahoma farm real estate values averaged \$1,520 per acre for cropland and \$1,480 for dryland pasture usda.library.cornell.edu/concern/publications/pn89d6567 or see extension.okstate.edu/programs/farm-management-and-finance/oklahoma-land-values/ for local information). Cattle may require 5 to 10 acres per head for native or improved pasture, depending on the size of the cattle, type of forage, rainfall, etc.


Table 6. Annual loan payments (\$/a) with alternative loan amounts and interest rates assuming a 20-year repayment period.

Loan amount (\$/a)	Interest rate		
	5%	6%	7%
1,500	121.07	131.66	142.66
2,000	161.43	175.55	190.21
2,500	201.79	219.44	237.77

Leasing farmland offers a way to begin farming or ranching without committing large sums of money to asset purchases up front. Cropland cash rental rates typically fall in the range of \$30 per acre per year to \$50 per acre per year, depending on the region and productivity of the tract. Native pasture often rents for \$12 per acre to \$20 per acre with Bermudagrass and other improved pasture renting for more.

Related Publications and Other Resources:

To help educate landlords and tenants with equitable lease agreements and current best management practices, visit the Oklahoma State University (OSU) Ag Land Lease website at aglandlease.info or oraglease.info. A joint effort between OSU's Plant and Soil Sciences and Agricultural Economics Departments, the website contains a wide assortment of farm management spreadsheet tools, lease information and forms, rental rate and land value resources, legal and tax considerations, livestock and hunting lease publications plus the latest production practices in Oklahoma.

 **Real Estate Averages:**
www.nass.usda.gov/Statistics_by_State/Oklahoma/Publications/Annual_Statistical_Bulletin/Binder1.pdf

 **Oklahoma Rental Rates/ Cropland:**
extension.okstate.edu/fact-sheets/oklahoma-cropland-rental-rates-2020-21.html

Pasture (OSU Extension Publication CR-216): extension.okstate.edu/fact-sheets/oklahoma-pasture-rental-rates-2020-21.html
Custom (OSU Extension Publication CR-205): extension.okstate.edu/fact-sheets/oklahoma-farm-and-ranch-custom-rates-2019-2020.html

Specific addresses for the several referenced North Central Farm Management Extension Committee (NCFMEC) publications are:

Crop Share Rental Arrangements For Your Farm, NCFMEC-2 at aglease101.org/wp-content/uploads/2020/10/NCFMEC-02.pdf

Fixed and Flexible Cash Rental Arrangements For Your Farm, NCFMEC-1 at aglease101.org/wp-content/uploads/2020/10/NCFMEC-01.pdf

Pasture Rental Arrangements, NCFMEC-3 at aglease101.org/wp-content/uploads/2020/10/NCFMEC-03.pdf

Recent Oklahoma school land lease auction information is also available through the Real Estate Management Division of Commissioners of the Land Office at clo.ok.gov/services/auction-information/real-estate/

Recent Oklahoma school land lease auction information is also available through the Real Estate Management Division of Commissioners of the Land Office at clo.oks.gov/services/auction-information/real-estate/.

Similarly, custom hiring can help make farm plans financially feasible until an operation has grown to the size needed to justify machine ownership. Oklahoma farm and ranch custom rates are reported in OSU Current Report CR-205 available at the same website as rental rate reports.

Sources for financial capital may include:

- personal savings,
- agricultural loans,
- combination of savings and loans, and
- a private lender (e.g., parent, grandparent, owner).

Chances are good that at some point you will need to seek out agricultural loans to finance a portion of your needs. The following is a list of financial sources and programs, some with lending programs aimed directly at agriculture and some specifically designed for beginning farmers.

- 1. Commercial Banks.** You may be the most comfortable approaching your local commercial lending institution, especially if you already have a good credit history with the institution. However, not all commercial banks make agricultural loans. If you do not have an established relationship with a local lender, the Oklahoma Bankers Association (OBA) website lists financial institutions at oba.com/oklahoma-bank-directory/. You will need to pursue the services of each individual bank to determine if they provide agricultural lending.
- 2. Farm Service Agency (FSA),** fsa.usda.gov. The mission of the USDA's Farm Service Agency includes stabilizing farm income, helping farmers conserve land and water resources, providing credit to new or dis-advantaged farmers and ranchers, and helping farm operations recover from the effects of disaster. The FSA makes direct loans for both farm ownership (FO) and farm operations (OL), and also guarantees loans made by conventional lenders. FSA has targeted loan funds to beginning farmers and socially disadvantaged applicants who are unable to obtain financing from commercial credit sources. A beginner farmer or rancher as defined by the FSA has not operated a farm for more than 10 years, substantially participates in the operation. Specifically for farm ownership loans, the farm cannot be greater than 30% of the average farm size for the county at the time of application. If the applicant is an entity, all members must be related and everyone must be eligible as a beginning farmer. Below is a description of loan programs in FSA and other programs that may benefit beginning farmers. Look for an FSA office in your county on the FSA website or in the phone book under U.S. Government.

a. Direct FSA Loans. Applicants should be aware that a limited amount of funds is available for each state each year for direct loans. Funds are appropriated each year based on the government's fiscal year, which begins October 1. The FSA encourages applications even if they are out of funds for the current fiscal year, so the producer gets in the queue for funds when they become available.

- i. Direct Farm Ownership Loans.* As of June 2020, the maximum loan amount for direct farm ownership loans is \$600,000 or \$300,150 for beginning farmer down payment. Rates are based on agency borrowing costs, but there are temporary limited re-source interest rates available for those unable to repay at regular rates. The proceeds may be used to purchase or enlarge family farms, improve and expand current operations, increase agricultural productivity, and assist with land tenure.
- ii. Direct Operating Loans.* The maximum loan amount is \$400,000. Repayment terms vary based on the purpose of the loan, the loan applicant's ability to pay, and income projections. For example, for family living expenses, the loan is normally due within 12 months or when the commodity sells. The term will not exceed 7 years. Interest rates are the lower rate in effect at the time of loan approval or loan closing for the type of loan warranted and are posted at the 1st of each month. The proceeds may be used toward costs associated with reorganizing a farm to improve profitability, purchase of livestock, including poultry, purchase farm equipment, farm operating expenses, minor improvements to repairs and buildings, refinance certain farm-related debts (excludes real estate), land and water development, loan closing and borrower training costs.
- iii. Microloans.* Microloans are focused to financing the needs of small, beginning farmer, niche and non-traditional farm operations. Examples include truck farms, farms participating in direct markets, or those using hydroponic, aquaponics, organic and vertical growing methods. There are two microloan options—direct farm ownership or direct farm operating. Direct farm ownership microloans can be used to make a down payment on a farm, build, repair or improve farm buildings, soil and water conservation projects, may be used as a down payment farm ownership loan and may be used in joint financing. Direct farm operating microloans can be used for essential tools, fencing and trellising, hoop houses, bees and bee equipment, milking and pasteurization equipment, maple sugar shack and processing equipment, livestock, seed, fertilizer, land rents, family living expenses and other materials essential to the operation like irrigation, good agricultural practices (GAP), good handling practices (GHP), organic certification costs, marketing and distribution costs and paying for qualifying OSHA compliance standards. The maximum loan amount is \$50,000. Interest rates are the lower rate in effect at the time of loan approval or loan closing for the type of loan warranted and are posted at the 1st of each month. Direct farm ownership loans require 3 years farm management experience within 10 years of the application date. One year of farm management experience can be substituted with 16 credit hours post-secondary education in agriculturally related field, business management, military leadership or management from having completed an acceptable military leadership course, or successful repayment of an FSA youth loan. Direct farm operating microloans applicants still need to have some farm experience but small business experience and agricultural internships and apprenticeship programs count towards the farm management requirement. Applicants with minimal farm experience can also work with a mentor for guidance. Producing farm income is not necessary to meet the requirements for managerial experiences.

- iv. *Minority and Women Farmers and Ranchers.* FSA targets a portion of all guaranteed loan funds, direct operating, and direct farm ownership loan funds, microloan funding and youth loans to historically underserved farmers and ranchers. Historically underserved farmers and ranchers include: women, African-Americans, Alaskan Natives, American Indians, Hispanic, Asian, and Native Hawaiians and Pacific Islanders. These loans are not a specific type of loan or loan type, but instead a designation. To be considered, loan applicants must voluntarily provide race, ethnicity, and gender information. Other than providing the previously mentioned information, the loan process and loan requirements for the specific program the person is applying for remains the same.
 - v. *Down Payment Farm Ownership Loan Program.* FSA has a special down payment FO loan program to assist beginning farmers and ranchers and/or minority and women applicants. To qualify, an applicant must make a cash down payment of at least 5% of the purchase price. The FSA will finance 45% to a maximum loan amount of \$300,150. The maximum loan amount will not exceed 45% of whichever is lesser: the purchase price, the appraised value of the farm, or \$667,000. The remaining balance may be financed by a commercial lender, private lender, cooperative or the seller. Managerial experience requirements as outlined in the microloan section applies. Additional options to by-pass the 3-year farm management requirement includes using the guaranteed farm ownership loan program or having at least 1 year of experience as a hired farm labor with substantial management responsibilities and be working with a SCORE mentor.
 - vi. *Sale of Inventory Farmland.* Eligible beginning farmers or SDA applicants are given first priority to purchase acquired property at the appraised market value for the first 135 days after a property is acquired. If more than one beginning farmer offers to purchase the property, the buyer is chosen by a random drawing.
 - vii. *Joint Financing Plan.* Beginning farmers may also participate in a joint financing plan that is available to other applicants. In this program, FSA lends up to 50% of the amount financed and charges a reduced interest rate on the loan.
- b. Guaranteed FSA Loans.** Farmers interested in guaranteed loans must apply to a conventional lender, which then arranges for the FSA guarantee. FSA guaranteed loans provide lenders (e.g., banks, Farm Credit System institutions, credit unions) with a guarantee of up to 95% of the loss of principal and interest on a loan.
- i. *Guaranteed Farm Ownership Loans.* Loans can be used to purchase farmland, construct or repair buildings or other fixtures, develop farmland to promote soil and water conservation or refinance debt. Loans can be up to \$1,776,000. The loan interest rate and payment terms are negotiated between the lender and the applicant, but cannot exceed the maximum rates established by the FSA. Repayment terms vary; however, farm ownership loans cannot exceed 40 years.
 - ii. *Guaranteed Operating Loans.* Can be used to purchase livestock, farm equipment, feed, seed, fuel, farm chemicals, insurance and other operating expenses. This loan also can be used to pay for minor improvements to buildings, costs associated with land and water development, family living expenses and to refinance some debt. The structure of this loan can be term loans or lines of credit, depending on the purpose and intended use. Loans can be up to \$1,776,000. The loan interest rate and payment terms are negotiated between the lender and the applicant, but cannot exceed the maximum rates established by the FSA. Repayment terms vary; however, operating loans are normally repaid within 7 years. Operating lines of credit may be advanced for up to five years and all advances must be repaid within 7 years of the date of the loan guarantee.

- iii. *Easy Guarantee*. This program is available for smaller loans and is simplified to help small, new or underserved family farmers with early financial assistance. Loans can be up to \$100,000 and must be used for farm operating or farm ownership purposes.

To qualify for FSA guaranteed loans, or microloans, the loan applicant must:

- Be a citizen of the U.S. (or legal resident alien), which includes Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, and certain former Pacific Island Trust Territories.
- Have an acceptable credit history as determined by the lender.
- Have the legal capacity to incur the obligations of the loan.
- Be unable to obtain a loan without a guarantee.
- Not have caused FSA a loss by receiving debt forgiveness on more than three occasions on or prior to April 4, 1996 or on any occasion after April 4, 1996.
- Be the owner or tenant operator of a family farm after the loan is closed. For an OL, the producer must be the operator of a family farm after the loan is closed. For an FO Loan, the producer also needs to own the farm.
- Not be delinquent on any Federal debt (income taxes, student loans, etc)

3. Farm Credit Services (FCS), farmcredit.com/. The Farm Credit System (Farm Credit) is a nationwide net-work of borrower-owned financial institutions and specialized service organizations. Farm Credit consists of four Farm Credit Bank Districts, which provides funding and affiliated services to more than 70 locally owned Farm Credit associations and numerous cooperatives nationwide. The fundamental purpose of this network of Government-sponsored enterprises created by Congress in 1916 is to provide American agriculture with a source of sound, dependable credit at competitive rates of interest. Farm Credit provides credit and related services to farmers, ranchers, producers and harvesters of aquatic products, rural homeowners, certain farm-related businesses, agricultural and aquatic cooperatives, rural utilities, and to certain foreign or domestic entities in connection with international agricultural credit transactions.

Below are the addresses of the four Farm Credit Associations in Oklahoma.

American Ag Credit - Ponca City
 1909 Lake Road
 Ponca City, OK 74604
 580-765-5690
<https://www.agloan.com/>

Farm Credit Services of East/Central Oklahoma
 601 E. Kenosha
 Broken Arrow, OK 74012
 918-251-8596
<https://www.okagcredit.com/>

Farm Credit of Western Oklahoma
 3302 Williams Ave.
 Woodward, OK 73801
 800-299-3465
www.fcwestok.com

Farm Credit of Enid
 1605 W. Garriot Rd.
 Enid, OK 73703
 580-233-3489
www.fcenid.com



- 4. Life Insurance Companies.** Life insurance companies have a history of investing in farm real estate mortgages. According to the Economic Research Service, these companies tend to prefer larger loans that are well secured and are intermediate to long-term in maturity. Life insurance companies made up 4% of the agricultural lenders without government support.

- 5. Private Individuals – Land Installment Contracts.** A long-term installment land contract is both an instrument of transfer and a method of finance. An owner-financed loan can be beneficial for both buyer and seller. Sometimes it allows a person who does not qualify for a loan with a lending institution to purchase farm assets. Friends or family members may be willing to finance a portion of a farming venture. In an installment contract, the buyer agrees to pay the seller a small down payment, and a series of principal and interest payments. Considerations in preparing an installment land contract include identification of the seller and buyer, an adequate description of the property, purchase price or other consideration, escrow agreement, abstract of title and title insurance, type of deed, transfer process, recording the deed, responsibility for expenses, method and time of payment (down payment, continuing payments, time and place, prepayments, grace period, default, crop and livestock liens), operation and use of property, costs and income, and defaults and remedies. With respect to operation and use, items such as possession, reservation of use, inspection of the premises, seller's right to participate in management, condition of improvements and assignments should be agreed upon. Likewise, rents and other income, taxes and special assignments, risk of loss and insurance, injuries to or by third parties, and condemnations should be considered. The contract may include the seller maintaining the deed until the purchase is complete. There may be tax advantages for the seller involved in an installment contract. Both buyers and sellers of property are encouraged to seek legal counsel before entering into an installment agreement. A bulletin, Long-Term Installment Land Contracts, NCR-56 is available from the University of Missouri Extension Service.

Part 5. Finding Opportunities for Education and Training

Even if you grew up on a farm or have spent years working on a farm, there are always new things to learn. If your farming experience is limited, you definitely will want to take advantage of educational opportunities and technical assistance available to farmers. Joining a trade association is another way to gain access to market-specific information, and to meet and talk with other producers.

Education and Outreach Organizations

Oklahoma Cooperative Extension Service/Oklahoma State University, extension.okstate.edu/: Cooperative Extension Educators are housed in every county, where they work side-by-side with residents to address local issues and concerns. County personnel can call upon State, District, and Area Extension Specialists who develop programs based on research-proven, objective information to help Oklahomans solve problems, promote leadership and manage resources wisely. County Extension offices often host educational workshops on topics that cover a wide variety of production and management practices for a variety of crop and livestock enterprises. Example programs include record keeping, marketing outlook, soybean production, pecan management, grape production, pest management and more. Contact your county office for more information about programming in your area. For a list of county offices, see extension.okstate.edu/county/index.html/. In addition, an entire library of Extension fact sheets is available online at <https://extension.okstate.edu/fact-sheets/index.html>. Following is a very small sample of titles:

- EPP-2072, Blister Beetles and Alfalfa
- HLA-6201, Pecan Varieties for Oklahoma
- AFS-8202, Backyard Flock Production

Oklahoma Food and Agricultural Products Research and Technology Center/Oklahoma State University, fapc.okstate.edu/. The primary goal of the center is to help producers, processors and entrepreneurs add value to Oklahoma's food and agricultural processing industries. The center hosts a basic training workshop for food business entrepreneurs. Other workshops offered by the center include financial management, marketing, the food industry, food safety and master canner.

Contact information:

Oklahoma Food and Agricultural Products Research and Technology Center

148 FAPC

Oklahoma State University

Stillwater, OK 74078-6055

Phone: 405-744-6071

Fax: 405-744-6313

fapc@okstate.edu

Agriculture Business Management Program/Oklahoma Career Technology Centers, okcareertech.org/educators/career-clusters/agriculture-food-and-natural-resources. The main objective of the Agriculture Business Management program is to help agricultural families achieve their business and family goals through improved management, organization and efficiency practices.

Kerr Center for Sustainable Agriculture, kerrcenter.com/. The Kerr Center publishes educational materials on a wide range of topics in sustainable farming and ranching. The Kerr Center also sponsors and organizes educational events such as workshops, short courses and conferences, including the Oklahoma Beginning Farmer and Rancher Program. The three-year project, which began in 2011, is supported by a grant from the USDA National Institute of Food and Agriculture and is designed to assist beginning farmers and ranchers with training, resources, and mentoring. At the end of the course, participants will have the knowledge and skills necessary to move forward with a successful farming plan.

The Kerr Center is partnering with the Oklahoma Farmer and Rancher Association (OFRA), the Rural Smallholder Association (RSA), and the Mvskoke Food Sovereignty Initiative (MFSI). The Oklahoma Cooperative Extension Service is also a partner. For more information on this and other programs offered, visit their website.

Contact Information:

Kerr Center for Sustainable Agriculture
24456 Kerr Road
Poteau, OK 74953
Phone: 918-647-9123
E-mail: mailbox@kerrcenter.com

Natural Resource and Conservation Service (NRCS)/U.S. Department of Agriculture. NRCS and its partnering agencies administer a broad range of conservation programs to assist farmers, ranchers and other landowners in conserving natural resources. These programs provide incentives such as technical and cost-sharing assistance to install conservation practices. The NRCS website also contains some technical resources such as a soil report for every county in the state.

Contact information:

United States Department of Agriculture
Natural Resources Conservation Service
100 USDA, Suite 206
Stillwater, OK 74074-2655
Phone: 405-742-1204
TTD Access: 405-742-1007

Oklahoma Department of Agriculture, Food and Forestry, ag.ok.gov. Visit this website for a discussion of Oklahoma's top commodities, daily commodity prices and market news. As the Department of Agriculture is also responsible for overseeing some agricultural regulations, you will also find a schedule for public hearings that will be conducted as well as any other events. The Oklahoma Agriculture Enhancement and Diversification Program provides funds in the form of loans or grants for the purpose of expanding the state's value added processing sector and to encourage farm diversification. The department also publishes a hay directory online.

Contact information:

Oklahoma Department of Agriculture
2800 N. Lincoln Blvd.
Oklahoma City, OK, 73105-4298
Telephone: (405) 522-3864

Risk Management Agency/U.S. Department of Agriculture, rma.usda.gov. The Risk Management Agency leads a comprehensive educational program that assists producers and agribusinesses in understanding their increased risk exposure and responsibility in the current economic environment; to understand and make effective use of risk management tools and strategies; and to integrate these strategies in decisions that meet their business, personal and community goals. Educational workshops and seminars, often in partnership with Extension, are scheduled year-round across the nation including some workshops in Oklahoma. Topics include grain marketing, dairy risk management, employee management and futures markets for beef cattle, etc. Visit their website for a calendar of training events.

Contact information:

Risk Management Agency/USDA
Oklahoma City Regional Office
215 Dean A. McGee Avenue, Suite 342
Oklahoma City, OK 73102
Phone: 405-879-2700
E-mail: rsook@rma.usda.gov

Noble Research Institute, noble.org/. The Noble Research Institute is a knowledge-based resource providing guidance to people in the pursuit of conservation and responsible management of renewable natural resources, focusing on southern Oklahoma and northern Texas. To help agricultural producers and other stewards of natural resources achieve their financial, production and quality-of-life goals, they provide decision support through consultation and other educational activities. They have demonstration farms, conferences and workshops plus newsletters and other publications. They also collaborate frequently with other organizations and producers to encourage responsible and effective land management and agricultural pursuits. The Noble Research Institute website is home to the eCattlelog—a free, online listing service for cattle producers. On the site you will find a long listing of agricultural titles available online. Information concerning public educational events is also listed. These include seminars such as beef quality assurance training and deer management field day.

Contact information:

Noble Research Institute
2510 Sam Noble Pky.
Ardmore, OK 73401
Phone: 580-223-5810

Socially disadvantaged and Veteran Farmers and Ranchers Program, Langston University, in cooperation with the USDA-NRCS, provides free assistance to small and underserved farmers, ranchers and other rural residents in the State of Oklahoma. This assistance is designed to help alleviate the financial problems confronting these producers. The 2501 program for so-



Oklahoma Cooperative Extension/OSU:
extension.okstate.edu



Listing of County Offices:
extension.okstate.edu/county/index.html



OSU Fact Sheets: extension.okstate.edu/fact-sheets/index.html



Contact Information:
Oklahoma Food and Agricultural Products Research and Technology Center
148 FAPC
Oklahoma State University
Stillwater, OK 74078-6055
Phone: (405) 744-6071
Fax: (405) 744- 6313
Email: fapc@okstate.edu



Oklahoma Agricultural Business Management:
okcareertech.org/educators/career-clusters/agriculture-food-and-natural-resources



Kerr Center:
Address:
Kerr Center for Sustainable Agriculture
24456 Kerr Road
Poteau, OK 74953
Phone: (918)647-9123
Email: mailbox@kerrcenter.com

**NRCS:**

usda.gov/
Address:
US Dept. of Agriculture
Natural Resources
Conservation Service
100USDA, Suite 206
Stillwater, OK 74074-
2655
Phone: (405)742-1204
TTD Access: (405)742-
1007

**ODAFF:** oda.

state.ok.us/
Address:
Oklahoma Dept. of
Agriculture
2800 N. Lincoln Blvd.
Oklahoma City, OK
73105-4298
phone: (405)521-3864

**Risk Management Agency:**

rma.usda.gov
Address:
Risk Management
Agency/USDA
Oklahoma City Regional
Office
215 Dean A. McGee
Ave. Suite 342
Oklahoma City, OK
73102
Phone: (405)879-2700
E-mail:
rsook@rma.usda.gov

**Noble Research Institute:**

noble.org/
Address:
Noble Research
Institute
2510 Sam Noble Pky.
Ardmore, OK 73401
Phone: (580)223-5810

**Small Farmer Outreach:**

Address:
Langston University
Center for Outreach
Program
Technical Assistance
Project
P.O. Box 730
Langston, Oklahoma
73050
Phone: (405) 466-6154
Fax: (405) 466-6177

cially disadvantaged and veteran farmers and ranchers is designed to enhance the coordination of outreach, technical assistance, educational efforts and to improve their participation in a full range of USDA programs.

Contact information:

Vernon Jones, Ph.D.

Associate Dean Phone: 405-466-6151

Email: vjones@langston.edu

Agriculture Related Associations

- 1. Oklahoma Brown Swiss Association.**
- 2. Oklahoma Holstein Association.**
- 3. Oklahoma Agribusiness Retailers Association, oklahomaag.com/.** Enid, Okla. Phone: 580-233-9516.
- 4. Oklahoma Angus Association, oklahomaangus.com.** An organization of those who own or who are interested in Angus cattle. Phone: 405-880-1993.
- 5. Oklahoma Aquaculture Association.** Phone: 405-377-0092; e-mail: cgebhart@ionet.net.
- 6. Oklahoma-Arkansas-Texas Association of Milking Shorthorn Breeders.**
- 7. Oklahoma Beef Council, oklabeef.org.** An organization supporting the Oklahoma beef industry. Phone: 405-840-3777.
- 8. Oklahoma Bison Association, okbison.org.** An organization with a mission to promote the bison industry in Oklahoma through seminars, newsletters, and the annual show and sales.
- 9. Oklahoma Cattlemen's Association, okcattlemen.org.** The primary focus of the OCA is to be represent the interests of Oklahoma's cattlemen at the Oklahoma Legislature. The OCA has continued an aggressive course of action supporting proactive legislation and challenging anti-industry legislation and regulations. The OCA has a recognized presence at the Oklahoma Legislature and the U.S. Congress. Phone: 405-235-4391.
- 10. Oklahoma Cattlewomen's Association, okcattlewomen.org.** The Oklahoma Cattlewomen's Association, Inc. mission is to involve and support its members in promoting beef and the beef cattle industry. Phone: 405-235-4391.
- 11. Oklahoma Christmas Tree Association, okchristmastrees.com.** The Oklahoma Christmas Tree Association members grow fresh, real Christmas trees on farms in Oklahoma.
- 12. Oklahoma Cotton Council, okiecotton.org.** Organization that promotes and protects the interests of the Oklahoma cotton industry. 580-333-1130.
- 13. Oklahoma Crop Improvement Association, okcrop.com.** Oklahoma Crop Improvement Association (OCIA) is a non-profit association of seed producers and others interested in the production and distribution of high quality planting seed. OCIA is designated by OSU as the Seed Certifying Agency for the state of Oklahoma in accordance with the Oklahoma Seed Laws. The agency is responsible for the development and distribution of rules, regulations and standards for all certification of seed and other propagating materials in the state. 405-744-7108.
- 14. Oklahoma Farm Bureau, okfarmbureau.org.** Farm Bureau is an independent, nongovernmental, voluntary organization of farm and ranch families united for the purpose of analyzing their problems, and formulating action to achieve educational improvement, economic op-

portunity, and social advancement and thereby, to promote the national well-being. There is a Farm Bureau office in every county of Oklahoma. Check their website or your phone book for a location. 405-523-2300.

- 15. American Farmers and Ranchers**, americanfarmersandranchers.com. American Farmers and Ranchers was organized in 1905 to help the family farmer while America was courting the Industrial Revolution. Today, with nearly 120,000 family memberships across the state of Oklahoma, they use a portion of the insurance premiums generated from American Farmers and Ranchers Mutual Insurance Company to support family agriculture and rural Oklahoma. Check their website or your phone book for your local Farmers Union agent. Phone: 405-218-5400
- 16. Oklahoma Grain and Feed Association**, oklahomaag.com. Enid, Okla. Phone: 580-233-9516.
- 17. Oklahoma Greenhouse Growers' Association**, The Oklahoma Greenhouse Growers Association comprises growers and marketers of floriculture crops such as bedding plants, potted flowering plants, cut flowers, garden perennials, herbs, foliage plants, patio plants, groundcovers and hanging baskets. The association also includes those involved in related areas as well as students of horticulture. Phone: 405-942-5276.
- 18. Oklahoma Haflinger Association**, The Haflinger horse is the result of the mating of native Austrian mountain mares with a part-Arabian stallion. The Oklahoma association is centered in Ramona, Okla. Phone: 918-637-8458.
- 19. Oklahoma Meat Goat Association**. oklahomameatgoatassociation.com/. Phone: 918-637-0180
- 20. Oklahoma Nursery and Landscape Association**, oknla.org. More than 300 member companies including garden center retailers, landscape firms, wholesale nursery growers, manufacturers and distributors of horticultural products are served by the ONLA. Telephone: (405) 945-6737; e-mail: info@oknurserymen.org.
- 21. Oklahoma Pecan Growers' Association**, okpecangrowers.com. The Oklahoma Pecan Growers' Association strives to provide educational opportunities and support for its members with the objective of cost effective production and marketing of high quality pecans. Phone: 580-279-0357
- 22. Oklahoma Peanut Commission**. okpeanutcomm.org The mission of the Oklahoma Peanut Commission is to provide peanut growers with a receptive and growing market for their peanuts and the information and tools for improved efficiencies. Through research and marketing initiative, the Commission is finding new ways to enhance production and increase consumer demand by promoting the great taste, nutrition and culinary versatility of Oklahoma-grown peanuts.
- 23. Oklahoma Pork Council**, okpork.org. OPC provides consumers with current information regarding food safety, nutritional value and preparation tips for pork products. This includes recipes, cookbooks, and educational materials for classrooms and promotional materials. OPC also provides producers with the latest research regarding management practices, nutrition needs of swine, odor management, nutrient material and educational programs dealing with other producer concerns. Phone: 405-232-3781.
- 24. Oklahoma Quarter Horse Association**, okqha.org. Bethany, Okla. Phone: 405-440-0694.
- 25. Oklahoma Sorghum Commission**, oksorghum.com. This organization is an affiliate of the National Sorghum Producers and represents Oklahoma in leading legislative and regulatory change through effective policy and relationships for a more profitable, diverse and competitive sorghum industry. Producer checkoff dollars are working to increase profitability

for Oklahoma sorghum growers. Phone: 405-612-2843; e-mail: oklahoma@sorghumgrowers.com.

- 26. Oklahoma Soybean Board.** oksoy.org. This organization is an affiliate of the American Soybean Association—a nonprofit, farmer-controlled organization working to strengthen soybeans as a viable crop. Phone: 918-343-2326.
- 27. Oklahoma Wheat Commission.** okwheat.org. In 1965, the Oklahoma Wheat Resources Act established the Oklahoma Wheat Commission, and with it a framework for Oklahoma wheat producers to invest in the promotion of their product, hard red winter wheat. The mission of the Oklahoma Wheat Commission is to promote and further develop the marketability and utilization of Oklahoma wheat through international and domestic market development, research and education. Phone: 405-608-4350.
- 28. Oklahoma Wheat Growers Association,** oklahomaag.com/oklahoma-wheat-growers-association.html. The Oklahoma Wheat Growers Association, a member of the National Association of Wheat Growers, is a nonprofit partnership of U.S. wheat growers who—by combining their strengths, voices and ideas—are working to ensure a better future for themselves, their industry and the general public. Phone: 580-233-9516.
- 29. Southwest Dairy Farmers,** southwestdairyfarmers.com. The Southwest Dairy Farmers is an alliance of dairy farmers from Texas, New Mexico, Arkansas and Oklahoma. These producers have pooled their resources to provide consumer education in nutrition, promote dairy product use and provide dairy product information. Phone: 918-392-1717.

This is not an exhaustive list of associations, and appearance on this list should not be viewed as an endorsement by the OSU Extension or Oklahoma State University.

Part 6. Locating Land for Farming

You may already own some farmland or maybe know of some nearby land for sale. If not, you are going to have to start from scratch. This is especially true if you are thinking of purchasing land in parts of the state that you are not already familiar with. Local real estate offices, local producers and ag lenders are likely to be good resources. Another way to get information about available farmland is to use a real estate locator on the Internet. These land locators are generally very easy to use. Most sites work in a similar fashion. On the home page, you indicate you are interested in farmland in Oklahoma. Most listings have photographs and will list contact information for a local real estate agent. Below is a list of online real estate locators that you may want to browse as a starting point.

dairyrealty.com

farmlandforsale.net

landandranchsales.com

unitedcountry.com

farmandranchrealestate.com

Evaluating Land

Certainly, some tracts of land are more aesthetically pleasing than others. However, unless you are planning to market the land based on its beauty (camping, hiking, etc.), aesthetics is not necessarily the most important factor. Livestock operations, for example, must utilize land that has the potential for good forage production. For these operations, as more forage is utilized, relative to hay or purchased supplements, winter feeding costs are reduced and net return is increased (other costs being equal).

Careful consideration should be given to the key elements of forage production when choosing land for a livestock operation. These elements are precipitation, soil and the existing forage base. Obviously, precipitation and soil qualities are important in crop production as well as livestock.

Precipitation levels vary throughout Oklahoma. If you are considering two tracts of land in two parts of the state, the tract that receives the most precipitation may be more profitable. However, actual rainfall received is only part of the story. A tract that receives less precipitation but has better soil texture may produce more when compared to a site with more precipitation but poorer soil conditions.

Soil texture is a major factor in determining soil's water retention. Fine textured soils that contain high percentages of clay and silt hold more water than coarse-textured soils such as sands. Fine-textured soils are generally higher in fertility than coarse-textured soils. For forage production, the best choice is generally a medium-textured soil such as loams, sandy loams or silt loams.

Soil depth is also an important factor to consider. Shallow soils have less water-holding capacity than deeper soils. This will reduce the site's ability to produce forage. See Table 6 for soil productivity as affected by depth. Shallow soils may be either naturally occurring or a result of past mismanagement and erosion of the topsoil. Contact the local USDA Natural Resource Conservation Service office for information about soil characteristics of a specific site. Oklahoma has a Standard Soil Survey for all 77 counties with detailed information regarding the precipitation, soil texture, soil depth and the suitability of sites in the county for forage production, wildlife production and crop production.

To the untrained eye, many pastures appear similar. However, there can be great differences in the existing forage base and the ability to stock livestock. Identifying key forage species can help determine if the site has been overgrazed. Plus, some species are more important to the overall goals of the ranch than others. County Extension personnel can provide further advice on the forage production capabilities of land you may wish to purchase.

Table 6. Soil productivity rating as affected by depth.

Soil Depth Usable by Crop Roots (feet)	Relative Productivity (%)
1	35
2	60
3	75
4	85
5	95
6	100

Source: So You Want to be a Rancher? Oklahoma Cooperative Extension Service.

Other considerations—a checklist

- Access to property—crossing another person’s property, quality of roads.
- Wetlands or archeological sites.
- Zoning and other land use restrictions—pesticide use, burning, etc.
- Existing easements.
- Flood potential and drainage.
- Old dump sites on or around property that may contain hazardous waste.
- Groundwater contamination.
- Population growth potential.
- Uncontrolled hunting and fishing.
- Low pH, high salt content or low organic matter in soils.
- Parcel has the right number of acres required.
- Parcel has the right combination of land—tillable versus pasture.
- Property is convenient with regard to accessing markets.
- Property is convenient with regard to accessing support services.
- Land’s location fulfills your family’s needs—close to family, friends, and off-farm employment.
- Land is located in a farm-friendly community.
- Site is zoned for agricultural use.
- Property is accessible—good roads, easements, etc.
- Easements on the property will not limit your farming goals.

Part 7. Understanding Land Use Regulations and Restrictions

Water Quality

Water quality issues are an important set of regulations impacting Oklahoma farmers. The Oklahoma Department of Agriculture, Food and Forestry (ODAFF) is the primary regulatory agency of agriculture in the state. In particular, ODAFF's Division of Agricultural Environmental Management Services works with producers and concerned citizens to protect the Oklahoma environment. See their website for more information (ag.ok.gov/divisions/agricultural-environmental-management/). Below are some of the programs administered by the Division of Agricultural Environmental Services.

Concentrated Animal Feeding Operation Program

There are three cases under which a permit may be required for an animal feeding operation. The Agricultural Environmental Management Services Division of the Oklahoma Department of Agriculture issues licenses in these situations and inspects the operations to protect water quality:

1. Large CAFO: Animals are confined in an area without growing vegetation—including under roof—for more than 45 days in a 12-month period, and the operation houses more than the following number of animals:

1,000	beef cattle or heifers
1,000	veal calves
700	mature dairy cattle
2,500	swine weighing more than 55 pounds
10,000	swine weighing less than 55 pounds
5,000	ducks with liquid manure handling system
30,000	laying hens or chickens with liquid-manure handling system
30,000	ducks with dry-manure handling system
82,000	laying hens with dry-manure handling system
125,000	meat chickens with dry-manure handling system
55,000	turkeys
10,000	lambs or sheep
500	horses

2. Medium CAFO: Animals are confined in an area without growing vegetation—including under roof—for more than 45 days in a 12-month period, a stream or man-made conveyance drains the confinement area, and the operation houses more than the following number of animals:

300	beef cattle or heifers
300	veal calves
200	mature dairy cattle
750	swine weighing more than 55 pounds



ODAFA Website:
[ag.ok.gov/divisions/
 agricultural-
 environmental-
 management/](http://ag.ok.gov/divisions/agricultural-environmental-management/)

3,000	swine weighing less than 55 pounds
10,000	ducks with liquid-manure handling system
37,500	laying hens or chickens with liquid-manure handling system
1,500	ducks with dry-manure handling system
25,000	laying hens with dry-manure handling system
37,500	meat chickens with dry-manure handling system
16,500	turkeys
3,000	lambs or sheep
150	horses

3. Designated CAFO: An agent of the federal or state regulatory agency has inspected the operation and determined that it is causing water quality degradation, regardless of animal numbers.

In addition, Swine Operations with more than 2,500 animals larger than 55 pounds or 10,000 animals less than 55 pounds, fall under the State Licensed Managed Feeding Operation, or LMFO program. This program is also administered by the Agricultural Environmental Management Services Division of the Oklahoma Department of Agriculture.

Registered Poultry Feeding Operators and Applicators Program

The Registered Poultry Feeding Operations Program is designed to help control nonpoint source runoff and discharges from poultry waste application of poultry feeding operations. This program monitors poultry waste application to land or removal from these operations and assists in ensuring beneficial use of poultry waste while preventing adverse effects to the waters of the state of Oklahoma. All poultry farmers whose farms create more than 10 tons of litter per year are required to become licensed in this program.

People who apply poultry litter must apply for a second poultry applicators license. There are two applicator classifications: 1) a private applicator, and 2) a commercial applicator. A private applicator is anyone who applies poultry litter on his or anyone else's property, but does not receive monetary compensation for the application. Note: a poultry operator who applies litter on his own property also must be licensed as a private applicator. Commercial applicators are people who receive monetary compensation for their services. The main difference in the two types of applicators is the amount of the license fee.

All poultry operators, private and commercial applicators, must receive 9 hours of initial poultry waste management training within one year of starting their business. Every year thereafter, they must receive 2 hours of continuing education training. The Oklahoma Cooperative Extension Service conducts this training program. Contact your county agricultural Extension educator for more details.

Pest Control

The ODAFA's Consumer Protection Services division ensures and enforces quality standards for agricultural products and regulates pesticide use. The laws regulated by this division impact the goods and services associated with Oklahoma's apiary, agrilime, ornamental plant, vegetable plant, feed, seed, fertilizer and pesticide industries. See their website for more information ag.ok.gov/pesticides/. Here are some examples of the programs this division administers.

Pesticide Applicators Law

The use of pesticides in Oklahoma is governed by the Pesticide Applicators Law, covering not only agricultural applications such as crop spraying and fumigating of grain bins, but also regulating the pest control industry, including the control of termites, weeds, roaches, etc.

Oklahoma Insect Pest & Plant Disease Law

The Oklahoma Insect Pest & Plant Disease Law provides for ongoing routine inspection of nursery and floral stock, with the goal of minimizing the spread of insect pests and plant diseases in such products' commercial distribution. The law requires the licensing of anyone engaged in the business of selling such products called the Nursery & Dealers Certificate. You do not need a license if you sell only cut flowers or cut Christmas trees.

Oklahoma Noxious Weed Law

The Oklahoma Noxious Weed Law designates three plants—musk thistle, Scotch thistle and Canada thistle—as noxious weeds. There are currently no funds available to assist landowners with the cost associated with the control of thistles. Individuals wishing to report thistle infestations that are not being controlled can file a complaint, and the landowner will be notified and informed.

Food Safety

ODAFF's Food Safety division assures the citizens of Oklahoma the food supply derived from meat, poultry, eggs and milk is safe, wholesome and properly labeled. Food Safety is divided into programs for dairy, meat, organic food, and poultry and egg. See their website for more information ag.ok.gov/divisions/food-safety/.

For example, in the dairy section, inspectors collect samples of milk from the dairy farms and from each product packaged by the processing plants at least four out of each six-month period. The samples are analyzed to determine if the milk or packaged dairy products meet the required federal safety standards. The meat section supplies information about inspection, compliance, applications, certifications, current operators and other resources. The poultry and egg section provides inspection and certification of poultry, eggs and egg products to ensure customer satisfaction and safety at all levels.

Part 8. Gaining Access to Markets

In terms of getting your product into customer hands, most Oklahoma farmers will choose from three options:

1. **Direct Marketing**—sell products directly to customers, such as through a farmers market or a cattle sale.
2. **Cooperative Membership**—sell products to a cooperative that handles the marketing, often the primary method for grain and fluid milk sales.
3. **Agreements with Processors/Distributors**—sell products to companies who process and/or distribute the products. A dairy farm may sell to a processor who also retails products or a cattle producer might sell to a meat packing facility.

However it is accomplished, the producer needs a marketing plan. The marketing plan outlines what you will sell to whom, where and for how much. Some basic components of a marketing plan will answer the following questions:

1. How much time and effort do I personally want to put into the marketing of my product?
2. Do I have the skills to deal effectively with customers?
3. Who is my customer? Individuals? Companies? Cooperatives? Government?
4. Do I need to store my product past harvest? How will this be done?
5. Does my product need to be specially packaged? What about labeling?
6. How will I transport my product to market?
7. Will I need product liability insurance?
8. What are the regulations that apply to the sale of my product?
9. What is my pricing strategy?

Direct Marketing

Some products may lend themselves to direct marketing more than others. For example, not many individuals purchase wheat grain for final use. Consumers might like to purchase raw milk from dairies, but government regulations are strict regarding processing of milk for consumption. Processing is probably too expensive for most family-owned dairies. Pumpkins, melons and gourds, on the other hand, are popular consumer commodities in the fall. In fact, families often like to pick their own pumpkins right out of the pumpkin patch. According to the USDA, the most popular farm products that are sold through direct marketing include fruits, vegetables, nuts, honey, meats, eggs, flowers, plants, herbs, spices, specialty crops, Christmas trees and value-added products such as maple sugar candies, cider, jellies, preserves, canned food and firewood.

If you like the idea of direct marketing and think your product is a good candidate for it, research your customers.

- Who are your customers? How old are they? Are they male or female?
- How do customers use your product? When and where do they use your product?
- How much disposable income do your customers have to spend on your product?
- Are your customers willing and able to come to you or do you need to go to them?
- What will your customers expect in terms of quality product and quality service?
- Will you need to educate your customers about your product?

 **Consumer Protection Service**
Website: ag.ok.gov/divisions/consumer-protection/

 **Food Safety**
Website: ag.ok.gov/divisions/food-safety/

You will also need to determine where your product will be sold.

- Farmers market
- Roadside stand
- Sales/Auctions
- Restaurants
- Your field (pick your own operation)
- Internet

Farmer Direct Marketing, a special division of the USDA, provides some resources for farmers engaged in direct marketing. One service they provide is a directory of farmers markets listed by state. Their website and this directory may be accessed at ams.usda.gov/local-food-directories/farmersmarkets

Cooperative Membership

Cooperatives are owned by their members. Like other businesses, cooperatives strive to achieve a profit for their owners. Unlike other businesses, profits are returned to owners/members based on how much they use the cooperative, and not on their share of ownership. Cooperative profits are distributed to members, most of who reside in the local community.

Even if you've decided to become a member of an agricultural cooperative, you still have a number of questions that your marketing plan must answer.

1. Should product be sold at harvest for cash?
2. Should product be held in on-farm storage for sale at a later date?
3. Should product be stored in a commercial elevator for sale at a later date?
4. Should product be sold in a cash forward contract?
5. Should product be sold with delayed pricing?
6. Should product be sold with a basis contract?

Marketing decisions may be improved by following a set procedure.

1. The target price should be calculated based on production costs and cash flow needs.
2. Marketing alternatives available in the area should be determined.
3. The price each alternative is offering should be calculated.
4. The risk involved with each alternative, relative to the producer's risk-bearing ability, should be considered.

Agreements with Processors/Distributors

Most dairy farmers belong to dairy cooperatives, but others sell to dairy manufacturing firms including Braum's, Farm Fresh, Hiland, Gilt Edge and others. Some of these plants, like Braum's, are vertically integrated and have their own dairy operation. Even so, they will still buy from other producers, typically through exclusive contracts.

As for fed cattle, a growing number are marketed through marketing agreements and contracts, participation in an alliance or membership in a cooperative. A strategic alliance can increase revenues and/or reduce costs through vertical affiliations. Several producer groups have worked to secure marketing agreements with beef packers and make them available to beef cattle producers. Breed association-sponsored, commercial, and natural/implant-free alliances may be

available to producers. The Extension fact sheet AGEC-614, *Update on Beef Industry Alliances* provides information about beef industry alliances. Producers should contact the Alliance Program in advance to determine the specific requirements of the alliance. Many alliances are available for producer participation but differ in the program's basic requirements. Advantages of participating in a strategic alliance are that the market is established by the demands of the alliance, delivery dates and location are negotiable, producers know ahead of time of what type of product they need to produce, and the cattle prices are based on the retail value of the final product. Some disadvantages include the need for larger lots and specific breeds or breed types with very specific nutrition and health programs. Producers will need to make initial plans several months ahead.

The poultry industry is highly vertically integrated. For instance, nearly all broilers grown in Oklahoma are produced under some contract between a poultry company and the grower. The poultry company furnishes chicks and feed, and supervises growth of the broilers through a service person. The grower provides the broiler house, equipment, labor and normal operating expenditures. The grower is paid per pound of usable broiler produced. The largest poultry processing and distribution companies may own, or mostly own, the enterprises involved in hatching and growing. The pork industry also is moving in this same direction.



**USDA Local
Food Directory:**

usdalocalfooddirectories.com



**Farmers
Market
Directory:**

oklahomaagritourism.com/activity/farmers-markets/

Part 9. Tax Considerations

As with any for-profit business, there are a number of tax issues to consider when you start farming. A good resource for farm tax information is Internal Revenue Service (IRS) publication 225, *The Farmer's Tax Guide*. This guide explains the need for good records and other information needed to better begin a farm business and is available on the IRS website, [irs.gov](https://www.irs.gov). For new farmers and ranchers, the most likely problems related to taxes include

1. Payroll Taxes
2. Self-Employment Tax
3. Hobby versus Business Losses
4. Property Tax and Tax-Exemption

Payroll Taxes

Payroll taxes are something you will need to account for if you have employees.


- A taxpayer identification number (TIN) must be obtained by filing form SS-4 with the IRS. A printable copy of this form can be downloaded from the IRS's website and is located at [irs.gov/pub/irs-pdf/fss4.pdf](https://www.irs.gov/pub/irs-pdf/fss4.pdf). A publication with instructions for completing the form is located at [irs.gov/pub/irs-pdf/iss4.pdf](https://www.irs.gov/pub/irs-pdf/iss4.pdf). (This form and all IRS publications shown here may change each tax year. If you are in doubt as to whether you have the latest version of a form or publication, start out on the IRS homepage, [irs.gov](https://www.irs.gov), and then find the forms through their search engine.)
- Federal and State Income Tax and Social Security and Medicare taxes must be withheld and deposited.
- Forms W-2 (wage and tax statement), W-3 (transmittal of wage and tax statements), and 943 (employers annual federal return form for agricultural employees) must be filed by January 31 for the previous calendar year. The IRS Publication 51, *Agricultural Employer's Guide*, will explain your responsibilities as an agricultural employer. The most recent version of this publication can be found on the IRS website at [irs.gov/pub/irs-pdf/p51.pdf](https://www.irs.gov/pub/irs-pdf/p51.pdf). Among other things, the publication discusses the following topics:
 - Social Security and Medicare taxes,
 - Income tax withholdings,
 - Form 943 Employer's Annual Federal Tax Return for Agricultural Employees,
 - Records you should keep, and
 - Income tax withholding tables.

Four IRS Taxpayer Assistance Centers are located in the state. Contact the one nearest you for answers to your tax questions.


Enid IRS Taxpayer Assistance Center
601 S. Harding
Enid, OK 73703
580-234-5417

Oklahoma City IRS Taxpayer Assistance Center
55 N. Robinson
Oklahoma City, OK 73102
405-297-4057

 **IRS Website:**
irs.gov

 **SS-4 Form:**
irs.gov/pub/irs-pdf/
fss4.pdf

 **SS-4
Instructions:** irs.
gov/pub/irs-pdf/
iss4.pdf

 **Agricultural
Employer's Guide:**
irs.gov/pub/irs-pdf/
p51.pdf

Lawton IRS Taxpayer Assistance Center
2202 SW A Ave.
Lawton, OK 73501
580-357-5492

Tulsa IRS Taxpayer Assistance Center
8023 E. 63rd Place, Suite 400
Tulsa, OK 74133
918-622-8482

Self-Employment Tax

Individuals who are in business for themselves must report income and expenses from that business on IRS Schedule C (Profit or Loss from Business – Sole Proprietorship) or Schedule F (Profit or Loss from Farming), if the net income is at least \$400. This net income is subject to a 15.3% self-employment tax rate. For 2020, the maximum amount of net self-employment tax earnings, subject to the social security portion of the self-employment tax, is \$137,700 and is subject only to a tax rate of 12.4%. Note the maximum amount changes annually and has been increasing over time. There is no maximum limit for the 2.9% rate for Medicare tax. For more information, refer to Publication 225, *Farmer's Tax Guide*, located on the IRS website at irs.gov/pub/irs-pdf/p225.pdf. Other requirements:

- Self-employment taxes are in addition to income tax due when net income for self-employment is combined with the individual's income from other sources on Form 1040.
- Self-employed individuals must make quarterly deposits of estimated income tax to avoid tax penalties.

If more than two-thirds of total gross income for all sources is from farming or ranching, quarterly estimated tax payments are not required if the individual's tax return is filed by March 1. For more information, refer to Publication 505, *Tax Withholding and Estimated Tax*, located on the IRS website at irs.gov/pub/irs-pdf/p505.pdf.

It is important to pay self-employment tax to ensure that an individual has social security coverage for old age, disability, survivor benefits and hospital insurance benefits (Medicare). The farm optional method for paying self-employment allows farmers and ranchers to voluntarily pay self-employment taxes and acquire social security coverage in low income years. For additional information covering self-employment taxes, please refer to the most recent version of Publication 225, *Farmer's Tax Guide*, located on the IRS website at irs.gov/pub/irs-pdf/p225.pdf.

Farmers and ranchers must be insured under the social security system before they can begin receiving social benefits. To be eligible for disability benefits, an individual must have the required quarters of coverage. For the latest explanation of the number of credits needed to be insured and the benefits available to a farmer and the family under the social security program, visit the local Social Security Administration (SSA) office or visit the SSA website at ssa.gov.

Hobby versus Business Losses

If a business shows no intent to make a profit, the IRS assumes the activity is a hobby and will disallow deductions for expenses in excess of income. The general test to measure profit motive is whether the activity has generated a profit in any three out of five consecutive tax years. This "hobby loss" test does not determine that a business must be considered a hobby, but only allows the IRS to look at the business in more detail. The actual decision of whether a business should be considered for profit is based on nine factors set forth in IRS regulations. Taxpayers can protect themselves by keeping good records that indicate a profit motive based on those nine factors.

1. Does the producer look like a business? For instance, good books and records are kept. Also, methods of operation are changed if they are not working, and techniques that hope to improve efficiency are attempted.

2. Can the producer take advice? Show evidence that experts have been consulted and their advice has been followed. Read books, took classes, attended workshops, paid advisers, etc.
3. Does the producer spend time on the farm? Expending time and effort on the farm is an indicator of profit motive. Employing competent persons to run activities on the farm may also indicate profit motive.
4. Is anything on the farm worth money? An increase in land value, cattle, or other assets could point to expected profit—even if current operations or practices are not showing a profit.
5. Has the producer done this before? If the producer has a history of turning unprofitable ventures into profitable ones, a profit motive could be assumed.
6. What has been happening on the farm? Are the losses mainly a start-up situation? Have there been unforeseen circumstances such as drought, fire, theft, depressed market conditions, etc.?
7. Has the producer made any money? An occasional small profit offset by persistent high losses would probably indicate there is no profit motive.
8. Is the producer making money doing anything else? If there is no substantial income from other sources, the profit motive is probably indicated. However, the existence of other income might just show good planning and would not necessarily negate the profit motive.
9. Is the producer having fun? The presence of personal pleasure or recreation in an activity can be used by the IRS to claim the activity as a hobby, but the other eight factors listed here must also be taken into account. The fact that a person enjoys a business is not sufficient to disallow the profit-making motive.



**Publication
505:**

[irs.gov/pub/irs-pdf/
p505.pdf](https://irs.gov/pub/irs-pdf/p505.pdf)

Property tax and sales tax exemption

Agricultural land and property in Oklahoma are taxable. Individual counties determine the acreage needed to be deemed agricultural status. Forty acres or more will normally qualify. Some counties allow a smaller acreage. Individual counties also determine property tax rates and listings for agricultural machinery, equipment and/or livestock. Each school district, career technology district, county government and other units of government using a property tax will set its rate from year to year within the limits set by law. In addition, each county has the authority to vote to exempt all household personal property and livestock in support of a farm family from property tax. Many counties have passed this exemption. However, when such an exemption is passed by the voters, there is a one-time adjustment of property tax rates to offset the reduction in revenue to local government bodies. A homestead exemption can provide a reduction in property tax. Persons who own homes in the county are eligible for a homestead exemption provided the home is their actual permanent residence and they are citizens of Oklahoma. A homestead is exempt from ad valorem taxation up to \$1,000 of the assessed value (the property's taxable valuation less \$1,000). An additional homestead exemption is allowed to any homeowner who is eligible for a homestead exemption and whose gross household income is \$20,000 or less for the preceding year. You must file for the homestead exemption at your county assessor's office. It is not automatic. The assessment date is January 1st, so it is a good idea to file by that date in the year in which you first acquire your home. Periodically thereafter, the assessor will contact you to confirm your homestead status.

Agricultural producers are able to file for agricultural sales tax exemption. Sales tax exemption applies to certain farm supplies and machinery and equipment purchases. The exemption form must be filed with the county assessor. You must remain in compliance with property taxes to maintain this status. Sales tax exemption forms and assistance in filing them are available at the county assessor's office.

Motor fuel for farm tractors or stationary engines is exempt from fuel taxes. The exempt sale of motor fuel for farm tractors or stationary engines owned or leased, and operated by any person and used exclusively for agricultural purposes is perfected by a refund claim filed by the consumer. The refund claim must be received by the Tax Commission within three (3) years following the last day of the calendar month in which the tax was paid. Refund claims for agricultural use of gasoline shall be less the \$0.0208 levied under the Motor Fuel Tax Code for gasoline used or consumed for agricultural purposes.



Statewide

Property Tax Rates:

rd.okstate.edu/

(choose County Training
Program,
Related Publications)

Part 10. Government Programs

The United States Department of Agriculture has provided programs to assist new and beginning farmers and ranchers since the early 1990s. Many of those programs are reauthorized every five years in the farm bill. The Agricultural Improvement Act of 2018 was signed into law on December 28, 2019. The bill largely extended the programs from the Agricultural Act of 2014, but additional incentives were provided for new and beginning producers in certain programs. For additional details on these programs visit one of the sites listed at the bottom of this section. Major changes in the 2018 Agricultural Improvement Act affecting producers include:

- Expanded limits for certain types of farm ownership loans;
- Updated payment calculations for commodity programs, Agriculture Risk Coverage–county (ARC-CO), Agriculture Risk Coverage individual (ARC-IC), and Price Loss Coverage (PLC);
- Offered the opportunity to change an election among ARC-CO, ARC-IC and PLC for each crop year in 2021, 2022, and 2023;
- Offered landowners the opportunity to update payment yields;
- Eliminated commodity program payments on base acres when an entire farm number had been consistently in grass for an extended period of time;
- Authorized industrial hemp as a commodity eligible for crop insurance and other farm bill programs;
- Reauthorized a permanent livestock disaster assistance program (including the Livestock Indemnity Program, the Livestock Forage Program, and the Emergency Assistance for Livestock, Honeybees and Farm-Raised Fish Program) that will cover losses from 2019 to 2023;
- Increased payment limits for certain livestock disaster programs in this bill and in the 2018 Bipartisan Budget Act;
- Extended crop insurance programs;
- Clarified the role of cover crops as good farming practices for crop insurance;
- Extended authorization of the Dairy Margin Coverage program from the 2018 Bipartisan Budget Act until 2023;
- Increased the enrollment acreage cap for the Conservation Reserve Program (CRP) through 2023;
- Adjusted CRP contract rates were reduced initially in the 2018 bill, the program has subsequently increased rates to encourage enrollment;
- Expanded funds for the Environmental Quality Incentives Program (EQIP);
- Created the Grassland Conservation Initiative for farms with base acres in grass that were no longer eligible for commodity program payments

Beginning farmers and ranchers (and socially disadvantaged farmers) may also be eligible for:

- NAP service fee waiver;
- Reduced crop insurance premiums or higher premium subsidies;
- A special allocation of FSA loan funding (including farm ownership loans and down payment loans).

To be eligible for these programs, certain requirements must be met. Additional requirements exist to be defined as a beginning farmer or rancher.

- Producers whose average AGI exceeds \$900,000 are not eligible to receive payments or benefits from most programs administered by the Farm Service Agency (FSA) and the Natural Resources Conservation Service (NRCS).
- Producers who participate in ARC or PLC are required to provide significant contributions to the farming operation to be considered as actively engaged in farming.

Base Reallocation and Yield Updates

Owners of farms that participate in ARC or PLC for the 2014-2018 crops have a one-time opportunity in 2014 (or possibly 2015) to: (1) retain current base acres or (2) reallocate base acres (excluding cotton bases). The new commodity programs are paid on base acres of covered commodities (instead of planted acres). Covered commodities include wheat, oats, barley, corn, grain sorghum, rice, soybeans, sunflower seed, rapeseed, canola, safflower, flaxseed, mustard seed, crambe and sesame seed, dry peas, lentils, small chickpeas, large chickpeas and peanuts. Landowners may choose to reallocate their historical base acres to covered commodities planted from 2009 through 2012. Base acre reallocation is proportionate to the four-year average (2009-2012) of planted covered commodities. Prevented planted acres are also included in the base reallocation calculations. Upland cotton is no longer considered a covered commodity. All cotton base acres on each farm as of September 30, 2013 are converted to generic base acres. No commodity program payments will be received if cotton is planted on generic base acres. However, generic base may be planted to another covered commodity and that commodity would be eligible for ARC or PLC payments. Unless a covered commodity is planted on generic base acres in a given year, the generic base acres are not relevant (as far as the commodity payment calculation).

The updated yield for each covered commodity is equal to 90% of the farm's 2008-2012 average yield per planted acre, excluding any year when no acreage was planted to the covered commodity. Payment yields are used in the PLC payment calculation.

Commodity Program Enrollment

All of the producers on a farm must make a unanimous election of: (1) PLC/ARC-county on a covered-commodity-by-covered-commodity basis; or (2) ARC-farm for all covered commodities per farm number. If ARC-individual coverage is chosen, every covered commodity on each farm number must be enrolled in ARC. The election between ARC and PLC will be made in 2019 for the 2019 and 2020 crop years, but can be changed for the 2021, 2022 and 2023 crop years. If the sum of the base acres on a farm is 10 acres or less, no PLC or ARC payments will be issued, unless the producer is a socially disadvantaged farmer or rancher or is a limited resource farmer or rancher. Payments for PLC and ARC are issued after the end of the respective crop year, but not before Oct. 1. So for example, the 2020 crop marketing year for wheat ends on May 31, 2021. If a payment is triggered for ARC and PLC in the 2020 crop year, it would be issued after October 1, 2021. Base acres are based on historical use of the farm. For example, a farm with historical wheat base would enroll in either PLC or ARC-CO under wheat. However, that producer could grow cotton instead without a penalty. Crop reporting is required for farms enrolled in Farm Service Agency programs. Additional information and tools are available at farmers.gov.

Producers also have the option to participate in the marketing loan program or loan deficiency program for loan commodities. Loan commodities include wheat, oats, barley, corn, grain sorghum, upland cotton, extra long staple cotton, long grain rice, medium grain rice, peanuts, soybeans, other oilseeds, graded wool, non-graded wool, mohair, honey, dry peas, lentils, small chickpeas and large chickpeas.

Price Loss Coverage (PLC)

The PLC program is a price safety net program where a payment is triggered when the marketing year average price falls below the effective reference price. These reference prices have a minimum level established in the 2014 farm bill (Table 1). However, the price that triggers a PLC payment can go up over time should marketing year prices for a commodity be sustained at a higher level than the reference price for a prolonged period. This is called the effective reference price. If the marketing year price falls below the effective reference price, a PLC payment will be issued. The PLC payment rate equals the effective reference price minus the marketing year average price. A producer's PLC payment is equal to the payment rate times the payment yield times 85% times base acres for the crop. It is possible that if the price drops below the reference price and yields are at normal levels, PLC could result in a higher payment than ARC in a given year.

Table 1. PLC Reference Prices

Crop	2014 PLC Reference Price
Barley	4.95/bushel
Canola	0.20/pound
Corn	3.70/bushel
Cotton	NA
Grain Sorghum	3.95/bushel
Peanuts	0.26/pound
Oats	2.40/bushel
Rice	0.14/pound
Seed Cotton	0.36/pound
Soybeans	8.40/bushel
Wheat	5.50/bushel

ARC

As an alternative to PLC, producers of covered commodities have the option to enroll in a revenue protection program, called Agricultural Risk Coverage (ARC). There are options to enroll in either farm-level coverage (ARC-IC) or county-level coverage (ARC-CO). ARC triggers a payment when the actual revenue is below a guaranteed level established at the beginning of the crop year.

The ARC-CO program is paid on 85% of base acreage of the farm commodity while the ARC-IC program is paid on 65% of total base acreage for the FSA farm including all commodities. It is important to note that with county-level coverage, producers could have a loss on their own farm, but would not receive a payment if the county does not suffer a loss as well. The ARC payment is limited to 10% of the benchmark revenue so payments would be issued when actual revenue (county or farm) is between 76% and 86% of the benchmark revenue. ARC-CO payments are issued when the actual county crop revenue of a covered commodity is less than the ARC-CO guarantee for the covered commodity and are based on county data, not farm data. Both the guarantee and actual revenue are computed using base acres, not planted acres. The ARC-CO payment is equal to 85% of the base acres of the covered commodity times the difference between the county guarantee and the actual county crop revenue for the covered commodity. Payments for ARC-CO may not exceed 10% of the benchmark county revenue (the ARC guarantee price times the ARC county guarantee yield).

The ARC-IC calculation includes all covered commodities planted on the FSA farm number. The benchmark revenue for ARC-IC is calculated as the five-year Olympic average of the sum of the revenues (yield times price) for all covered commodities on the farm using actual planted acres of the covered commodities. Payments are issued when the actual individual crop revenues, summed across all covered commodities on the farm, are less than ARC-IC guarantees summed across those covered commodities on the farm. The farm, for ARC-IC purposes, is the sum of the producer's interest in all ARC farms in the state. The ARC-IC payment is equal to 65% of the sum of the base acres of all covered commodities on the farm, times the difference between the individual guarantee revenue and the actual individual crop revenue across all covered commodities planted on the farm. Like ARC-CO, the payments for ARC-IC may not exceed 10% of the individual benchmark revenue.

MARKETING ASSISTANCE LOANS

Nonrecourse marketing assistance loans (MALs) and loan deficiency payment (LDPs) are extended for the 2019 – 2023 crops of wheat, corn, grain sorghum, barley, oats, up-land cotton, extra-long staple cotton, long grain rice, medium grain rice, soybeans, other oilseeds (including sunflower seed, rapeseed, canola, safflower, flaxseed, mustard seed, crambe and sesame seed), dry peas, lentils, small chickpeas, large chickpeas, graded and nongraded wool, mohair, honey, unshorn pelts and peanuts. Provisions are mostly unchanged from the 2014 farm bill, except marketing loan gains and loan deficiency payments are subject to payment limitations.

CONSERVATION RESERVE PROGRAM (CRP)

The CRP acreage cap was increased under the 2018 farm bill gradually until 2023. Each year a producer can decide if they would like to offer their land to USDA Farm Service Agency for set aside and conservation purposes, and in return receive a rental payment. Beginning farmers and ranchers who wish to transition land out of CRP and back into production can apply for the Transition Incentives Program (TIP) to return land to production. The owner or operator of the land with the expiring CRP contract must agree to sell, have a contract to sell, or lease the land for 5 years to a beginning producer. In addition, the landowner agrees to let the beginning producer make improvements under an approved conservation plan for the final two years of the CRP contract.

FARM OPERATING LOANS AND MICROLOANS

Farm Operating Direct and Guaranteed Loan Programs continue to provide low-interest financing for producers to purchase farm and ranch operating inputs. Changes include an expansion of the types of entities eligible, favorable interest rates for joint financing arrangements, increases in loan limits for microloans, availability of youth loans in urban areas, and elimination of term limits for guaranteed operating loans.

FARM OWNERSHIP LOANS

Farm Ownership Direct and Guaranteed Loan Programs provide low-interest financing for producers to purchase farms and ranches and other real estate related needs. The 2018 farm bill revisions expanded the types of entities eligible, provide favorable interest rates for joint financing arrangements, provide a larger percent guarantee on guaranteed conservation loans, increase the loan limits for the down payment program, and authorize a relending program to assist Native American producers purchase fractionated interests of land.

DISASTER PROGRAMS

Natural and weather disasters can be especially difficult for beginning producers. The 2018 farm bill reauthorizes disaster programs, in addition to crop insurance, livestock revenue protection insurance, and non-insured disaster protection (NAP). The following four disaster programs authorized by the 2008 Farm Bill were extended indefinitely in the 2014 farm bill. The programs are made retroactive to Oct. 1, 2011, which means that losses from years prior to the 2014 Farm Bill implementation were covered. As of the 2014 farm bill, producers were no longer required to purchase crop insurance or NAP coverage to be eligible for these programs (the risk management purchase requirement) as mandated by the 2008 Farm Bill.

LIVESTOCK FORAGE DISASTER PROGRAM (LFP)

LFP provides compensation to eligible livestock producers that have suffered grazing losses due to drought or fire on land that is native or improved pastureland with permanent vegetative cover or that is planted specifically for grazing. LFP payments for drought are equal to 60% of the monthly feed cost for up to five months, depending upon the severity of the drought. LFP payments for fire on federally managed rangeland are equal to 50% of the monthly feed cost for the number of days the producer is prohibited from grazing the managed rangeland, not to exceed 180 calendar days. The LFP sign-up process began in April 2014 and has extended to 2023 under the 2018 farm bill. Producers who owned livestock from Oct. 1, 2011 to the current date should visit their local FSA office to find out more about the LFP program.

LIVESTOCK INDEMNITY PROGRAM (LIP)

LIP provides benefits to livestock producers for livestock deaths in excess of normal mortality caused by adverse weather or by attacks by animals reintroduced into the wild by the federal government. LIP payments are equal to 75% of the average fair market value of the livestock. For example, livestock killed due to a wildfire, a severe freeze, or lightning strikes may be eligible. In addition, livestock that had to be sold due to severe injury may also be eligible for a LIP payment for the difference in the LIP indemnity rate and discounted value received at market. Notice of loss must occur within 30 days and the deaths must be documented.

EMERGENCY ASSISTANCE FOR LIVESTOCK, HONEYBEES AND FARM-RAISED FISH (ELAP)

ELAP provides emergency assistance to eligible producers of livestock, honeybees and farm-raised fish for losses due to disease (including cattle tick fever), adverse weather or other conditions, such as blizzards and wildfires, not covered by LFP and LIP. Total payments are capped at \$20 million in a fiscal year.

TREE ASSISTANCE PROGRAM (TAP)

TAP provides financial assistance to qualifying orchardists and nursery tree growers to replant or rehabilitate eligible trees, bushes, and vines damaged by natural disasters. For example, severe freeze that requires grape vines in vineyards to be pulled out and replanted could be eligible for the TAP program. As with other disaster programs, notice of loss must be made when the damage becomes apparent, and the damage must be documented prior to any sort of disposal.

For more information:

extension.okstate.edu/programs/ag-policy-and-law/

farmers.gov

newfarmers.usda.gov

Appendix

See agecon.okstate.edu/budgets for information on OSU Enterprise Budget Software.

Cow-Calf Enterprise Budget — 100 Cow Unit Size (sample only)

March calving percentage - 87.3%, calf death loss - 4.2%

2021 sale price projections

PRODUCTION	Wt.	Unit	Price/Cwt	Quantity	Total	\$/Head
Steer Calves	524.3	Lbs.	\$163.00	41.82 Hd.	\$35,737	\$357.37
Heifer Calves	514.7	Lbs.	\$143.00	16.82 Hd.	\$12,377	\$123.77
Cull Cows	1,150.0	Lbs.	\$57.00	20.00 Hd.	\$13,110	\$131.10
Cull Replacement Heifers	825.0	Lbs.	\$133.00	5.00 Hd.	\$5,486	\$54.86
Cull Bulls	1,750.0	Lbs.	\$80.00	1.00 Hd.	-	-
Other Income		Head	-	1.00	-	-
Total Receipts					66,711\$	667.11\$
OPERATING INPUTS		Unit	Price	Quantity	Total	\$/Head
Pasture		Head	\$260.00	1	\$26,000	\$260.00
Hay		Head	\$67.68	1	\$6,768	\$67.68
Grain		Head	-	1	-	-
Protein Supplement		Head	\$73.82	1	\$7,382	\$73.82
Salt		Head	-	1	-	-
Minerals		Head	\$13.36	1	\$1,336	\$13.36
Other Feed Additives		Head-		1	-	-
Vet Services/Medicine		Head	\$35.00	1	\$3,500	\$35.00
Vet Supplies		Head	\$6.84	1	\$684	\$6.84
Marketing		Head	\$8.36	1	\$836	\$8.36
Mach/Equip Fuel, Lube, Repairs		Head	\$62.63	1	\$6,263	\$62.63
Machinery/Equipment Labor		Hrs.	\$15.00	3.35	\$5,025	\$50.25
Other Labor		Hrs.	\$15.00	5.90	\$8,850	\$88.50
Other Expenses		Head	\$47.00	1	\$4,700	\$47.00
Annual Operating Capital		Dollars	4.50%	\$484.82	\$2,182	\$21.82
Total Operating Costs					\$73,526	\$735.26
Returns Above Total Operating Costs					\$(6,815)	\$(68.15)
FIXED COSTS		Unit	Rate		Total	\$/Head
Machinery/Equipment						
Interest at		Dollars	4.75%		\$632	\$6.32
Taxes at		Dollars	1.00%		\$244	\$2.44
Insurance		Dollars	0.85%		\$113	\$1.13
Depreciation		Dollars			\$2,179	\$21.79
Livestock						
Interest at		Dollars	4.75%		\$5,477	\$54.77
Taxes at		Dollars	1.00%		\$1,336	\$13.36
Insurance		Dollars	0.85%		\$980	\$9.80
Depreciation		Dollars			\$1,700	\$17.00
Land		\$/Acre				
Interest at		Dollars	0.00%		-	-
Taxes at		Dollars	0.00%		-	-
Total Fixed Costs					\$12,661	\$126.61
Total Costs (Operating +Fixed)					\$86,187	\$861.87
Returns Above all Specified Costs					\$(19,476)	\$(194.76)

Payne County - Central Oklahoma

Used machinery complement 25% heifer replacement rate with 0 purchased and 25 raised

Primary forages - Native

See www.agecon.okstate.edu/budgets for information on OSU Enterprise Budget Software.

Stocker Enterprise Budget – 150 Steers (sample only)

November purchase - 450 pounds, March sale - 669 pounds

\$.38/pound gain pasture cost

Projected sale price determined by beefbasis.com.

PRODUCTION	Wt.	Unit	Price/Cwt	Quantity	\$/Head
Stockers	669	Lbs.	\$142.50	0.990 Hd.	\$944.21
Other Income		Head	-	0.990 Hd.	-
Total Receipts					\$944.21

OPERATING INPUTS:	Wt.	Unit	Price	Quantity	\$/Head
Stockers	450	Lbs.	\$170.00	1 Hd.	\$765.00
Pasture		Head	\$91.43	1	\$91.43
Hay		Head	\$8.50	1	\$8.50
Grain		Head	-	1	-
Protein Supplement		Head	-	1	-
Salt		Head	\$0.12	1	\$0.12
Minerals		Head	\$0.36	1	\$0.36
Other Feed Additives		Head	-	1	-
Vet Services/Medicine		Head	\$7.14	1	\$7.14
Vet Supplies		Head	\$0.98	1	\$0.98
Marketing		Head	\$8.00	1	\$8.00
Mach/Equip Fuel, Lube, Repairs		Head	\$14.44	1	\$14.44
Machinery/Equipment Labor		Hrs.	15.00	1.60	\$24.00
Other Labor		Hrs.	15.00	1.50	\$22.50
Other Expenses		Head	2.50	1	\$2.50
Annual Operating Capital		Dollars	4.50%	293.77	\$13.22
Total Operating Costs					\$958.19
Returns Above Total Operating Costs					\$(13.98)

FIXED COSTS	Unit	Rate	\$/Head
Machinery/Equipment	\$/value		
Interest at	Dollars	4.75%	\$2.58
Taxes at	Dollars	1.00%	\$0.98
Insurance	Dollars	0.85%	\$0.46
Depreciation	Dollars		\$8.39
Land	\$/Acres		-
Interest at	Dollars	0.00%	-
Taxes at	Dollars	0.00%	-
Total Fixed Costs			\$12.41
Total Costs (Operating +Fixed)			\$970.60
Returns Above all Specified Costs			\$(26.39)

Caddo County - Southwest Oklahoma Stocker phase - 120 days
 Average daily gain - 2 lbs., 1% death loss Used machinery complement
 Primary forage - Small Grain

Break-even (B-E) Analysis			
Break-Even Purchase Price (\$/cwt.)		Break-Even Selling Price (\$/cwt.)	
Above Operating Costs	\$166.89	Above Operating Costs	\$144.61
Above Total Costs	164.14	Above Total Costs	\$146.48

See agecon.okstate.edu/budgets/ for information on OSU Enterprise Budget Software.

Dryland Wheat Enterprise Budget – Grain only

1,000 acres farmed, 160 acres for this budget

2021 harvest price projection

Pasture value \$.38 per pound gain

Low tillage

PRODUCTION	Units	Price	Quantity	Total \$/Acre
Wheat	Bu.	\$4.50	35.00	\$157.50
Small Grain Pasture	Acre	\$41.80	1	\$41.80
Other Income	Acre	-\$	0	-
Total Receipts				199.30\$
OPERATING INPUTS	Units	Price	Quantity	\$/Acre
Wheat Seed	Bu./acre	\$11.50	1.50	\$17.25
Fertilizer	Acre	\$46.32	1	\$46.32
Custom Harvest	Acre	\$35.06	1	\$35.06
Pesticide	Acre	\$18.79	1	\$18.79
Crop Insurance	Acre	\$13.00	1	\$13.00
Annual Operating Capital	Dollars	5.50%	75.83	\$4.17
Machinery Labor	Hrs.	\$15.00	0.00	-\$
Custom Hire	Acre	\$57.95	1	\$57.95
Machinery Fuel, Lube, Repairs	Acre	-	0	-
Other Expense	Acre	-	0	-
Total Operating Costs				\$192.54
Returns Above Total Operating Costs				\$6.76
FIXED COSTS	Units	Rate	\$/Acre	
Machinery/Irrigation\$/value				
Interest at	Dollars	5.75%	-	
Taxes at	Dollars	1.00%	-	
Insurance	Dollars	0.85%	-	
Depreciation	Dollars		-	
Land	\$/acre		-	
Interest at	Dollars	0.00%	-	
Taxes at	Dollars	0.00%	-	
Total Fixed Costs			-	
Total Costs (Operating + Fixed)			\$192.54	
Returns Above All Specified Costs			6.76	

Garfield County - North-Central OK

Owner-Operator

Custom field work

Grain Break-even (B-E) Analysis			
B-E Yield at Bu.	4.50	B-E Price at bu./acre	35.00
Above Operating Costs (bu.)	33	Above Operating Costs	\$4.31
Above Total Costs (bu.)	33	Above Total Costs	\$4.31

References

- Doye, Damona. *Goal Setting for Farm and Ranch Families*. Oklahoma State University, Oklahoma Cooperative Extension Service – College of Agricultural Sciences and Natural Resources, Fact Sheet AGEC-244, March 2017.
- Kauppila, Dennis; Annette Higby; Don Maynard and Liz Veskosky. *Resource Guide for Vermont's New and Aspiring Farmers*. Vermont New Farmer Network and UVMCenter for Sustainable Agriculture, [Online:<http://agriculture.vermont.gov/index.php>], Fall 2008.
- National Agricultural Statistics Service, *2017 Census of Agriculture – State Data*. National Agricultural Statistics Service, United States Department of Agriculture, [Online:<http://www.agcensus.usda.gov/Publications/>].
- Oklahoma Agricultural Statistics Service. *Oklahoma Agricultural Statistics 2020*. United States Department of Agriculture, National Agriculture Statistics Service, Oklahoma Department of Agriculture, Food, and Forestry, September 2020. nass.usda.gov/Statistics_by_State/Oklahoma/Publications/Annual_Statistical_Bulletin/ok-bulletin-2020-web.pdf
- Woods, Tim and Steve Isaacs. *PRIMER for Selecting New Enterprises for Your Farm*. Kentucky Cooperative Extension Service – College of Agriculture, Extension No. 00-13, August 2000.



References within this publication to any specific commercial product, process or service by trade name, trademark, service mark, manufacturer, or otherwise does not constitute or imply endorsement by Oklahoma State University Cooperative Extension. Any omissions in listing of organizations is unintentional. If you have a suggestion for future editions, please email [damona.doye@okstate.edu](mailto:damana.doye@okstate.edu), or contact the Agricultural Economics Department at 405-744-9836.

Oklahoma State University, as an equal opportunity employer, complies with all applicable federal and state laws regarding non-discrimination and affirmative action. Oklahoma State University is committed to a policy of equal opportunity for all individuals and does not discriminate based on race, religion, age, sex, color, national origin, marital status, sexual orientation, gender identity/expression, disability, or veteran status with regard to employment, educational programs and activities, and/or admissions. For more information, visit <https://eeo.okstate.edu>.

Issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Director of Oklahoma Cooperative Extension Service, Oklahoma State University, Stillwater, Oklahoma. This publication is printed and issued by Oklahoma State University as authorized by the Vice President for Agricultural Programs and has been prepared and distributed at a cost of \$1.00 per copy.



EXTENSION