

# 2019 Nebraska Crop Budgets

**Robert Klein, Senior Editor, Western Nebraska Crop Specialist**  
**Glennis McClure, Extension Educator - Agricultural Economics**  
**Roger Wilson, Farm Management / Enterprise Budget Analyst, Retired**

These budget projections were created using cropping practice norms for many producers in Nebraska. However, each individual farming operation is unique.

**These budgets are available in both Adobe PDF and Excel worksheet formats. Producers can modify them to match their specific situation. The danger of releasing a tool that can subsequently be modified is that there is no way to verify that no alterations have been made or unrealistic data entered. Therefore, users of this tool are responsible for independently verifying all results prior to relying on them.**

Original files for these budgets are available at <http://extension.unl.edu/publications> and on <https://cropwatch.unl.edu/budgets>.

For more information contact:  
Robert Klein, 308-696-6705 or [rklein1@unl.edu](mailto:rklein1@unl.edu)  
Glennis McClure, 402-472-0661 or [gmcclure3@unl.edu](mailto:gmcclure3@unl.edu)

The following individuals contributed to these budgets in their specialty area:

Loren Giesler	Plant Pathologist - Soybean and Turf
Jessica Groskopf	Extension Educator - Agricultural Economics
Tamra Jackson-Ziems	Plant Pathologist - Corn and Sorghum
Jim Jansen	Extension Educator - Agricultural Economics
Paul Jasa	Extension Biological Systems Engineer
Chris Proctor	Extension Educator - Weed Management
Robert Tigner	Extension Educator - Agricultural Economics
Stephen Wegulo	Plant Pathologist - Wheat and Ornamental
Robert Wright	Extension Entomologist

---

*Nebraska Extension is a Division of the Institute of Agriculture and Natural Resources at the University of Nebraska–Lincoln cooperating with the Counties and the United States Department of Agriculture.*

*Nebraska Extension educational programs abide with the nondiscrimination policies of the University of Nebraska–Lincoln and the United States Department of Agriculture.*

© 2018, The Board of Regents of the University of Nebraska on behalf of the University of Nebraska–Lincoln Extension. All rights reserved.

# Table of Contents

Table of Budgets.....	2
2019 Crop Budgeting Procedures .....	5
Budget Divisions.....	5
Benefits of Soybeans in Corn/Soybean Rotation .....	6
Table 1. Power Unit Cost Data Used for 2019 Budgets.....	6
Table 2. Machinery Cost Data Used for 2019 Budgets .....	7
Table 3. Material Prices Used for 2019 Budgets.....	8
Converting Energy Numbers in Budgets .....	10
Table 4. Conversion of Diesel to Electricity .....	10
Diesel Fuel Conversion for Center Pivots.....	10
Table 5. Table for adjusting the amount of diesel fuel required by center pivots for lifts and pressures other than the 125 feet of lift and 35 PSI used in the budgets. Gallons of diesel fuel required to pump an acre-inch of water at pump performance ratings of 100 percent* .....	11
Table 6. Federal Crop Insurance Premium Estimates.....	12

## Table of Budgets

Crop	Page
1-Alfalfa, Conventional Tillage, Fall Establishment, Dryland	13
2-Alfalfa, Roundup Ready®, No Till, Fall Establishment, Dryland	14
3-Alfalfa, Roundup Ready®, Conventional Tillage, Fall Establishment, Dryland	15
4-Alfalfa, Small Square Bales, Conventional Tillage, Establish Spring Seed with Herbicides, 2.8 ton Yield, Dryland	16
5-Alfalfa, Roundup Ready®, Small Square Bales, Conventional Tillage, Establish Spring Seed, 2.8 ton Yield, Dryland	17
6-Alfalfa, Large Square Bales, Conventional Tillage, Establish Spring Seed with Herbicides, 3.8 ton Yield, Pivot Irrigated	18
7-Alfalfa, Roundup Ready®, Large Square Bales, Conventional Tillage, Establish Spring Seed, 4 ton Yield, Pivot Irrigated	19
8-Alfalfa, Large Round Bales, Conventional Tillage, Fall Seeded with Subsequent Year Production, Gravity Irrigated, 2.5 ton Yield, fed by canal	20
9-Alfalfa, Large Round Bale, 4.4 ton Yield, Dryland	21
10-Alfalfa, Large and Small Square Bale, 6.7 ton Yield, Pivot Irrigated Electric	22
11-Alfalfa, Roundup Ready®, Large and Small Square Bale, 6.8 ton Yield, Pivot Irrigated Electric	23
12-Alfalfa, Large and Small Square Bale, 6.6 ton Yield, Pivot Irrigated Electric	24
13-Alfalfa, Large Square Bale, Gravity Irrigated, 6.6 ton Yield, fed by canal	25
14-Alfalfa, Roundup Ready®, Large Square Bale, 6.8 ton Yield, Gravity Irrigated, fed by canal	26

## Table of Budgets (Continued)

<b>Crop</b>	<b>Page</b>
15-Corn, Conventional Tillage, Continuous, 90 bu Yield, Dryland	27
16-Corn, Conventional Tillage, in Corn/Soybean Rotation, Conventional Seed (Non Bt), 100 bu Yield, Dryland	28
17-Corn, Eastern Nebraska, Conventional Tillage, Continuous, 150 bu Yield, Dryland	29
18-Corn, Eastern Nebraska, Conventional Tillage, in Corn/Soybean Rotation, 160 bu Yield, Dryland	30
19-Corn, Bt, ECB, RW, RR2, & RIB, No Till, Continuous, 125 bu Yield, Dryland	31
20-Corn, Bt, ECB, RW, RR2, & RIB, Eastern Nebraska, No Till, Continuous, 170 bu Yield, Dryland	32
21-Corn, SmartStax RIB Complete, No Till, Continuous, 130 bu Yield, Dryland	33
22-Corn, SmartStax RIB Complete, Eastern Nebraska, No Till, Continuous, 175 bu Yield, Dryland	34
23-Corn, Bt, ECB, & RIB, No Till, after Soybeans, 135 bu Yield, Dryland	35
24-Corn, Bt, ECB, & RIB, Eastern Nebraska, No Till, after Soybeans, 185 bu Yield, Dryland	36
25-Corn, ECB, RR2, & RIB, Ecofallow, Follows Wheat, Two Crops in Three Years, 125 bu Yield, Dryland	37
26-Corn, Bt, ECB, RW, & RIB, Ridge Till, Continuous, 240 bu Yield, Gravity Irrigated, fed by a well	38
27-Corn, Bt, ECB, & RIB, Ridge Till, after Soybeans, 250 bu Yield, Gravity Irrigated, fed by a well	39
28-Corn, SmartStax RIB Complete, Ridge Till, Continuous, 245 bu Yield, Gravity Irrigated, fed by a well	40
29-Corn, SmartStax RIB Complete, Panhandle, Conventional Tillage, Continuous, 190 bu Yield, Gravity Irrigated, fed by canal	41
30-Corn, Bt, ECB, RW, & RIB, No Till, Continuous, 240 bu Yield, Pivot Irrigated Diesel	42
31-Corn, SmartStax RIB Complete, No Till, Continuous, 245 bu Yield, Pivot Irrigated Diesel	43
32-Corn, Bt, ECB, & RIB, No Till, after Soybeans, 270 bu Yield, Pivot Irrigated Diesel	44
33-Corn, Bt, ECB, RW, & RIB, Conventional Tillage, Continuous, 230 bu Yield, Pivot Irrigated Diesel	45
34-Corn, Bt, ECB, & RIB, Conventional Tillage, after Soybeans, 240 bu Yield, Pivot Irrigated Diesel	46
35-Corn, SmartStax RIB Complete, Panhandle, Conventional Tillage, Continuous, 190 bu Yield, Pivot Irrigated Electric	47
36-Corn, Bt, ECB, RR2, & RIB, Panhandle, Conventional Tillage, after Soybeans, 200 bu Yield, Pivot Irrigated Electric	48
37-Corn, SmartStax RIB Complete, Conventional Tillage, Continuous, 235 bu Yield, Pivot Irrigated Diesel	49
38-Corn, Silage, No Till, Following Corn, 26 ton Yield, Pivot Irrigated Diesel	50
39-Dry Beans, Reduced Till, after Harvest of Cover Crop, 27 cwt Yield, Pivot Irrigated Electric	51
40-Dry Beans, Conventional Tillage, 27 cwt Yield, Gravity Irrigated, fed by canal	52
41-Dry Beans, Conventional Tillage, 27 cwt Yield, Pivot Irrigated Electric	53
42-Dry Beans, Direct Harvest, Conventional Tillage, 27 cwt Yield, Pivot Irrigated Electric	54

## Table of Budgets (Continued)

Crop	Page
43-Grain Sorghum, Conventional Tillage, 105 bu Yield Goal, Dryland	55
44-Grain Sorghum, No Till, 125 bu Yield Goal, Dryland	56
45-Grain Sorghum, Ecofallow, after Wheat, Two Crops in Three Years, 115 bu Yield Goal, Dryland	57
46-Grain Sorghum, No Till, Limited Irrigation, 165 bu Yield Goal, Pivot Irrigated Diesel	58
47-Grass, Conventional Tillage, Fall Establishment, Pivot Irrigated Diesel	59
48-Grass Hay, 2.2 ton Yield, Large Round Bale	60
49-Millet, Panhandle, Stubble Mulch Fallow, Followed by Wheat, Two Crops in Three Years, 22 cwt Yield, Dryland	61
50-Millet, No Till, 22 cwt Yield, Dryland	62
51-Oats, No Till, 90 bu Yield Goal, Dryland	63
52-Pasture, Grazing, 11 AUM, Pivot Irrigated Diesel	64
53-Peas, No Till, 35 bu Yield, Dryland	65
54-Sorghum-Sudan, Annually Planted, Conventional Tillage, Large Round Bale, 3.3 ton Yield, Dryland	66
55-Soybeans, Roundup Ready <sup>®</sup> , Conventional Tillage, after Corn, 40 bu Yield, Dryland	67
56-Soybeans, Roundup Ready <sup>®</sup> , No Till, after Corn, 45 bu Yield, Dryland	68
57-Soybeans, Roundup Ready <sup>®</sup> , No Till, Continuous, 40 bu Yield, Dryland	69
58-Soybeans, Roundup Ready <sup>®</sup> , Conventional Tillage, after Corn, 62 bu Yield, Pivot Irrigated	70
59-Soybeans, Roundup Ready <sup>®</sup> , Conventional Tillage, after Corn, 65 bu Yield, Gravity Irrigated, fed by a well	71
60-Soybeans, Roundup Ready <sup>2</sup> <sup>®</sup> Xtend Treated, No Till narrow rows, after Corn, 70 bu Yield, Pivot Irrigated Diesel	72
61-Soybeans, Roundup Ready <sup>®</sup> , No Till, Narrow Row, Continuous, 59 bu Yield, Pivot Irrigated Diesel	73
62-Soybeans, Roundup Ready <sup>2</sup> <sup>®</sup> Xtend, No Till Drilled 7.5-inch Rows, after Corn, 73 bu Yield, Pivot Irrigated Diesel	74
63-Sugarbeet, Roundup Ready <sup>®</sup> , Panhandle, One Pass Zone-Tillage, 26 ton Yield, Gravity Irrigated, fed by canal	75
64-Sugarbeet, Roundup Ready <sup>®</sup> , Panhandle, Conventional Tillage, 26 ton Yield, Gravity Irrigated, fed by canal	76
65-Sugarbeet, Roundup Ready <sup>®</sup> , Panhandle, One Pass Zone-Tillage, 26 ton Yield, Pivot Irrigated Diesel	77
66-Sugarbeet, Roundup Ready <sup>®</sup> , Panhandle, Conventional Tillage, 26 ton Yield, Pivot Irrigated Diesel	78
67-Sunflower, Clearfield, Panhandle, No Till, Following Corn or Grain Sorghum, 13 cwt Yield, Dryland	79
68-Sunflower, Clearfield, Panhandle, Ecofallow, after Wheat, Two Crops in Three Years, 16 cwt Yield, Dryland	80
69-Sunflower, Clearfield, Panhandle, No Till, 30 cwt Yield, Pivot Irrigated	81
70-Wheat, No Till, Wheat after Row Crop, 55 bu Yield Goal, Dryland	82
71-Wheat, No Till, Fallow, One Crop in Two Years, 65 bu Yield Goal, Dryland	83
72-Wheat, Stubble Mulch Fallow, One Crop in Two Years, 60 bu Yield Goal, Dryland	84
73-Wheat, Conventional Tillage, One Crop in Two Years, 55 bu Yield Goal, Dryland	85
74-Wheat, No Till, Wheat before Corn, Two Crops in Three Years, 75 bu Yield Goal, Dryland	86
75-Wheat, No Till, after Dry Beans, 100 bu Yield Goal, Pivot Irrigated Diesel	87
76-Wheat, No Till, in Rotation, 85 bu Yield, Pivot Irrigated Electric	88
77-Cover Crop, Conventional Tillage	89
78-Cover Crop, No Till	90

# 2019 Crop Budgeting Procedures

This publication contains 78 crop production budgets for 15 crops, as well as tables for power, machinery, labor, and input costs used to develop these budgets. Each budget consists of five sections:

- Heading
- List of representative field operations
- List of materials and services used
- Operations and interest tabulations
- Overhead costs, including real estate taxes and opportunity charges

The budgets are presented in a worksheet format with a “Your Estimate” column for recording cost modifications.

## Budget Divisions

The **heading** consists of the crop name, system description, and method of water application.

The **list of representative field operations** is organized in a table with columns for the operation name, quantity or number of times used with units, labor, fuel and lube, power source, and implement costs for both repairs and ownership. “Times” or “Quantity” is typically presented in acres with a decimal denoting where an operation is done on less than all of the acres or where it represents the probability of an operation being done. For those operations that are done multiple times, the number of times are listed. Swathing multiple cuttings of hay is an example. If a unit is other than “acres,” it is specified in the “Unit” column. Other units used are bushels (bu), hundredweight (cwt), tons, and acre-inches (ai).

Labor costs for each operation were calculated from machinery accomplishment rates and adjusted for additional time required for getting machinery ready, adjusting machinery, and handling fertilizer and other supplies. The estimated costs for completing these operations are multiplied by the number in the “Times” or “Quantity” column, the product of which is multiplied by the hourly wage (\$20 per hour) and the labor factor.

Fuel costs also use machinery accomplishment rates as well as estimated fuel consumption rates to determine fuel use. The fuel cost is multiplied by a lube factor of 1.15 and the price of energy which is \$2.49 per gallon for diesel and \$0.105 per kWh for

electricity. Repairs and depreciation costs were estimated using functions and factors from the *Agricultural Engineer's Yearbook*, which is published by the American Society of Agricultural and Biological Engineers. It requires making assumptions about the size and age of the equipment, which we did. We further assumed that machinery was fully utilized.

Data used to calculate power unit costs are in *Table 1* and data used for machinery operation costs are in *Table 2*. All units are acres unless noted in footnotes.

Irrigation costs were calculated using engineering performance standards and typical water application rates, which will depend on the rainfall area. Repair and ownership costs for the power component of the irrigation system refer to the pump and power unit. Repair and ownership costs for the implement component refer to the delivery system (pipe or pivot).

The **list of materials and services** used is calculated by multiplying the application rate by the application price (*Table 3*) and then by the percent acres applied. A value less than 100 percent is used when a material or service is applied on only part of the acres or part of the time. For example, fields planted with Bt corn seed must have 20 percent of the acres planted to a refuge crop. There would be 20 percent in the column called “Percent Acres Applied” for the non-Bt seed and 80 percent for the Bt seed. Another example is when a practice is not always used. If an insecticide is used one year out of four, a “25 percent” would be entered in the column “Percent Acres Applied.” The cost for each material/service is computed by multiplying the percentage of acres by the quantity per acre and then by the price per unit.

Prices for materials and services in the budgets were obtained in October 2018. Multiple Peril Crop insurance premiums per acre for the crop budgets are based on 2018 figures at the 70% for irrigated and 75% for dryland LP (level by practice). See *Table 6* for costs listed in budgets. Federal crop insurance premiums for 2019 will be available for producers in the spring of 2019. Additional hail and wind or other additional insurance coverages per crop were not included in the budgets.

The value in the “Operation Index” column in the “Materials and Services” section indicated the corresponding operation in the “Field Operations” section. Data for calculating materials cost is in *Table 3*.

The **operations and interest** tabulations are the sum of totals of the first two sections with interest calculated on the cash costs. Cash costs in interest calculations include labor, fuel, and repairs from the list of field operations and all costs from the materials and services.

Overhead costs include accounting, liability insurance, vehicle cost, and office expense. Real estate cost is calculated using values from the UNL publication *Nebraska Farm Real Estate Market Developments* published in June 2018 times an investment rate of 3 percent. Until 2018, 4 percent was used. Taxes on real estate are not included in interest calculations because in Nebraska they are due at the end of the year in which they accrue and are not delinquent until May and September of the following year.

A **production cost and cash cost** per unit of production is calculated. The cost per unit of production is the sum of all costs divided by the projected yield. The cash cost per unit of production does not include machinery power and implement ownership, overhead, and real estate opportunity costs.

It should be noted that these budgets are cost estimates only and have no estimates as to profitability.

### **Benefits of Soybeans in Corn/Soybean Rotation**

The budgets for continuous soybeans are different from the budgets for soybeans after corn. A direct comparison of these budgets does not tell

the entire story as some of the benefits from soybeans in a corn/soybean rotation are realized in the following corn crop.

One benefit is decrease of the corn rootworm problem. When corn follows soybeans, the rootworm insecticide can be omitted and there is no need to purchase corn seed with the rootworm trait. This amounts to approximately a \$15.00 per acre savings to the following corn crop.

A second benefit is corn following soybeans will typically yield more. This increase is between 4 to 10 bushels per acre for irrigated corn and 10 to 30 bushels for dryland corn. Using a 10 bushel increase in corn and a price of three dollars per bushel results in a \$30 per acre increase in income.

A final benefit is the value of nitrogen produced by the soybean crop. If the soybeans produce 45 pounds of nitrogen per acre this amounts to a savings to the corn crop of \$18.90 per acre when nitrogen costs forty-two cents a pound.

The above benefits amount to \$63.90 per acre which does not include the benefits of spreading labor and machinery use requirements out over a longer time frame.

However, additional phosphorus must be applied to replace that used by the soybeans in a corn crop following soybeans. This amounts to about 0.8 pound for every bushel of soybeans produced. The cost to replace 48 pounds of P<sub>2</sub>O<sub>5</sub> needed for a 60 bushel per acre soybean crop would be approximately \$21 per acre.

**Table 1. Power Unit Cost Data Used for 2019 Budgets**

<i>Name</i>	<i>List Price</i>	<i>Age</i>	<i>Total Tach</i>	<i>Est. Hours per Year</i>
Large Tractor	331,066	10	1,500	300
Medium Tractor	224,262	5	2,500	500
Combine	351,122	10	1,500	300
Electric Pump	10,500	5	2,400	800
Diesel Pump for Pivot	15,750	10	2,400	800
Diesel Pump for Pipe	15,750	10	2,400	800
Windrower	150,309	10	2,500	120

**Table 2. Machinery Cost Data Used for 2019 Budgets**

<i>Operation Name</i>	<i>List Price</i>	<i>Age</i>	<i>Annual Use</i>	<i>Unit</i>	<i>Units per Hour</i>	<i>Diesel Use per Hour</i>
Anhydrous Application	N/A	5	500	acre	12	6.36
Bale Large Round	22,417	5	1,000	ton	10	2.88
Bale Large Square	120,658	5	1,000	ton	16	6.19
Bale Small Square	24,555	5	1,250	Ton	4	3.50
Cart	42,000	5	440,000	bushel	1,540	3.00
Chisel	59,791	5	2,000	acre	11	8.26
Chop Stalks	19,971	5	500	acre	12	5.74
Combine Dryland Corn	53,013	5	1,000	acre	7	10.50
Combine Dryland Soybeans	32,435	5	1,000	acre	7	10.50
Combine Dryland Sorghum	32,435	5	1,000	acre	7	10.50
Combine Irr Corn	53,013	5	1,000	acre	7	10.50
Combine Irr Dry Beans	32,435	5	1,000	acre	5	10.50
Combine Irr Soybeans	32,435	5	1,000	acre	6	10.50
Combine Irr Sorghum	32,435	5	1,000	acre	7	10.50
Combine Irrigated Dry Beans with Draper Flex Platform	32,435	5	1,000	acre	5	10.50
Combine Small Grain	32,435	5	1,000	acre	7	10.47
Combine Sunflowers	53,013	5	1,000	acre	7	10.50
Corrugate	30,000	5	300	acre	7	4.39
Disk	44,962	5	2,000	acre	11	8.29
Double Windrows	7,403	20	300	acre	20	2.11
Drill	66,251	10	1,000	acre	13	4.99
Drill Grass	73,000	10	1,000	acre	9	4.29
Drill No-Till	66,251	5	1,000	acre	12	6.07
Drill w/ Fertilizer	66,251	10	1,000	acre	11	5.00
Field Cultivation	59,791	5	2,000	acre	15	8.20
Harrow		5	1,000	acre	19	2.05
Irrigation Ditch	N/A	5	1,000	acre-inch	2	
Irrigation Pipe Diesel 125' Lift	N/A	10	2,600	acre-inch	2	3.03
Irrigation Pivot Diesel 125' Lift	70,000	10	2,600	acre-inch	2	3.34
Irrigation Pivot Diesel 125' Lift w/fertigation	75,000	10	2,600	acre-inch	2	3.34
Irrigation Pivot Electric 125' Lift	70,000	10	2,600	acre-inch	2	
Irrigation Pivot Electric 125' Lift w/fertigation	75,000	10	2,600	acre-inch	2	
Lift Beets	110,000	5	1,000	acre	6	6.19
Load Large Square	4,213	5	3,000	ton	20	4.00
Load Small Square	13,000	5	1,250	ton	10	2.00
Move Large Round	4,213	5	3,000	ton	20	4.00
Pickett Windrowers	32,000	5	1,000	acre	10	6.07
Plant	72,828	5	1,000	acre	10	2.73
Plant Narrow Row	72,828	5	1,000	acre	10	2.58
Plant No-Till	126,703	5	1,000	acre	10	3.38
Plow	15,874	5	1,000	acre	8	6.00
Ridge Cultivate/Ditch	30,000	5	1,000	acre	12	5.33
Ridge Cultivation	30,000	5	1,500	acre	10	5.33
Ridge Plant and Band Herbicide	126,703	5	1,500	acre	10	3.41
Rod Weeder		5	1,000	acre	13	5.35
Rod Weeder & Fertilizer		5	1,000	acre	13	5.35
Roll		5	300	acre	9	5.46
Roller Harrow	30,000	5	1,000	acre	10	5.00
Rotary Hoe	25,000	5	1,000	acre	15	3.67
Row Crop Cultivation	30,000	5	1,000	acre	11	3.50

**Table 2. Machinery Cost Data Used for 2019 Budgets (Continued)**

<i>Operation Name</i>	<i>List Price</i>	<i>Age</i>	<i>Annual Use</i>	<i>Unit</i>	<i>Units per Hour</i>	<i>Diesel Use per Hour</i>
Seeder/Packer	62,545	5	1,000	acre	8	4.29
Spray (Prior Year Stubble)	36,000	5	2,500	acre	25	2.64
Spray Fertilizer	36,000	5	1,000	acre	25	2.64
Spray Fertilizer and Herbicide	36,000	5	1,000	acre	25	2.64
Spray Herbicide	36,000	5	2,500	acre	25	2.64
Spray Insecticide	36,000	5	2,500	acre	25	2.64
Spray Spring Burndown Herbicide	36,000	5	2,500	acre	25	2.64
Spread Fertilizer	N/A	5	1,000	acre	13	3.86
Ripper	59,791	5	500	acre	9	8.25
Swath/Condition Hay	-	5	2,000	acre	10	5.00
Till Plant Beets	48,000	5	1,000	acre	6	8.25
Top Beets	50,000	5	1,000	acre	6	3.50
Turn Windrows	7,403	5	1,000	acre	12	2.10
Windrow Grain	-	5	3,000	acre	10	5.00

**Table 3. Material Prices Used for 2019 Budgets**

<i>Item</i>	<i>Price per Unit</i>
<b>Additive</b>	
21-0-0-24S	\$0.35/pound
Approved adjuvant	\$3.00/acre
Crop Oil Concentrate	\$10.75/gallon
MSO	\$21.50/gallon
NIS	\$23.00/gallon
UAN	\$1.55/gallon
<b>Custom</b>	
Aerial Spray	\$10.00/acre
Bale Lg Sq 1360 lb	\$15.00/bale
Broadcast Seed	\$5.00/acre
Chop, Haul, Pack	\$10.75/ton
Dry 2 Points Removed	\$0.08/bushel
Haul & Apply Manure	\$6.00/ton
Haul Beets	\$5.00/ton
Haul Grain (Dry Beans)	\$0.28/cwt
Haul Grain (Millet)	\$0.24/cwt
Haul Grain (Sunflower)	\$0.30/cwt
Haul Grain Bushels	\$0.11/bushel
Load Large Square Bales	\$2.00/bale
Spray	\$7.00/acre

<i>Item</i>	<i>Price per Unit</i>
<b>Fertilizer</b>	
10-34-0	\$2.45/gallon
10-34-0-1Zn	\$2.50/gallon
11-52-0	\$0.27/pound
28-0-0	\$1.33/gallon
32-0-0	\$0.42/lbs N
32-0-0 (Applied by Pivot)	\$0.42/lbs N
32-0-0 (Applied by R2)	\$0.42/lbs N
46-0-0	\$0.42/lbs N
82-0-0	\$0.31/lbs N
Uncomposted manure	\$1.00/ton
<b>Fungicide and Seed Treatment</b>	
Copper	\$3.50/pint
Headline AMP	\$330.00/gallon
Pea Seed Inoculant	\$0.06/lb
Priaxor	\$700.00/gallon
Prosaro 421 SC	\$340.00/gallon
Quadris	\$230.00/gallon
Quilt Xcel	\$210.00/gallon
Stratego YLD	\$570.00/gallon
Tilt	\$100.00/gallon



**Table 3. Material Prices Used for 2019 Budgets (Continued)**

<i>Item</i>	<i>Price per Unit</i>
<b>Herbicide and Additive</b>	
2,4-D Amine	\$12.00/gallon
2,4-D Ester 4#	\$17.00/gallon
AAtrex 4L	\$18.00/gallon
Acuron	\$60.00/gallon
Aim 2EC	\$190.00/quart
Ally Extra SGW/TOTSOL	\$9.00/ounce
Armezon Pro	\$170.00/gallon
Atrazine 4L	\$13.00/gallon
Atrazine 90 DF	\$3.00/pound
Authority First DF	\$90.00/pound
Balance Flexx	\$3.70/ounce
Basagran 5L	\$80.00/gallon
Beyond	\$610.00/gallon
Bicep II Magnum	\$45.00/gallon
Brox 2EC	\$35.00/gallon
Dicamba	\$41.00/gallon
DiFlexx	\$170.00/gallon
Distinct	\$40.00/gallon
Engenia	\$130.00/gallon
FeXapan	\$70.00/gallon
Glyphosate w/Surfactant	\$15.00/gallon
Gramoxone SL 2.0	\$27.00/gallon
Huskie	\$120.00/gallon
Landmaster BW	\$17.00/gallon
Laudis	\$570.00/gallon
Lumax EZ	\$80.00/gallon
Outlook	\$150.00/gallon
Peak	\$18.00/ounce
Prowl H2O	\$52.00/gallon
Pursuit	\$480.00/gallon
Raptor	\$610.00/gallon
Roundup WeatherMax	\$33.00/gallon
Rugged	\$33.00/gallon
Select Max	\$110.00/gallon
Sharpen	\$870.00/gallon
Spartan 4F	\$270.00/gallon
Spirit	\$14.00/ounce
Status	\$4.30/ounce
Valor XLT	\$96.00/pound
Velpar 75DF	\$36.00/pound
Vida	\$550.00/pound
XtenviMax	\$70.00/gallon

<i>Item</i>	<i>Price per Unit</i>
<b>Insecticide</b>	
Asana XL	\$70.00/gallon
Brigade 2EC	\$90.00/gallon
Capture LFR	\$300.00/gallon
Lorsban 15 G	\$2.25/pound
Lorsban 4 E	\$60.00/gallon
Lorsban Advanced	\$60.00/gallon
Mustang Maxx	\$180.00/gallon
Regent 4 SC	\$10.00/ounce
Warrior II/Zeon	\$370.00/gallon

<b>Other</b>	
Electricity Fixed	\$30.00/acre
Electricity Usage	\$0.105/kw
Fence /Water Repairs	\$260.00/circle
Irrigation District O&M Charge	\$30.00/acre
Move Cattle	\$20.00/hour
Twine Large Round	\$0.70/bale
Twine Large Square	\$1.23/bale
Twine Small Square	\$0.07/bale

<b>Rental</b>	
Grass Drill	\$15.00/acre
Seeder/Packer	\$13.00/acre

<b>Scouting</b>	
Scouting Dry Beans	\$10.00/acre
Scouting Dryland Corn	\$7.00/acre
Scouting Dryland Soybeans	\$7.00/acre
Scouting Dryland Wheat	\$7.00/acre
Scouting Grain Sorghum	\$7.00/acre
Scouting Irrigated Corn	\$9.00/acre
Scouting Irrigated Soybeans	\$9.00/acre
Scouting Irrigated Wheat	\$9.00/acre
Scouting Sugar Beets	\$16.00/acre

**Table 3. Material Prices Used for 2019 Budgets (Continued)**

<i>Item</i>	<i>Price per Unit</i>
<b>Seed</b>	
Alfalfa RR 2/Inoculant	\$9.00/pound
Alfalfa w/Inoculant	\$6.00/pound
Corn	\$190.00/bag
Corn Bt, ECB, & RIB	\$220.00/bag
Corn Bt, ECB, RR2, & RIB	\$240.00/bag
Corn Bt, ECB, RW, & RIB	\$250.00/bag
Corn Bt, ECB, RW, RR2, & RIB	\$270.00/bag
Corn RR2	\$220.00/bag
Corn SmartStax RIB Complete	\$300.00/bag
Cover Crop	\$15.00/acre
Cover Crop Legume	\$30.00/acre
Edible Beans	\$92.00/cwt
Grass Seed	\$75.00/acre
Millet	\$0.60/pound
Oats	\$10.00/bushel

<i>Item</i>	<i>Price per Unit</i>
<b>Seed</b>	
Peas	\$18.00/bushel
RR2 Soybeans	\$56.00/bag
RR2 Soybeans Treated	\$60.00/bag
RR2 Soybeans Xtend	\$62.00/bag
RR2 Soybeans Xtend Treated	\$66.00/bag
Sorghum Safened/Insect	\$3.20/pound
Sorghum Sudan	\$0.90/pound
Sorghum Sudan (Treated)	\$1.10/pound
Sorghum Sudan Brown (Treated)	\$1.50/pound
Sorghum Sudan Brown Midrib	\$1.30/pound
Sugar Beets RR Poncho	\$180.00/acre
Sunflower Clearfield	\$360.00/bag
Wheat	\$0.10/pound
Wheat (Certified Treated)	\$0.27/pound
Wheat Cover Crop	\$0.10/pound

**Converting Energy Numbers in Budgets**

If your energy source is different from that used in the 2019 crop budgets, use *Table 4*, developed by Extension Irrigation Engineer Derrel Martin, to convert from diesel to other energy sources.

For example, to convert diesel in gallons to kilowatt-hours of electricity, the multiplier is 14.12. If electricity is \$0.138 per kilowatt, the calculation would be  $14.12 \times 0.138 = \$1.95$ . The 2018 crop budgets use \$2.25/gallon of diesel. If you use electricity, the cost would be about 50 percent of that cost. However, with electricity you must also include connect charges, and in order to get the best rates, you'll need to sign up for load management

**Table 4. Conversion of Diesel to Electricity**

*Propane, Gasoline, and Natural Gas\**

<b>Energy Source</b>	<b>Units</b>	<b>Multiplier</b>
Electricity	Kilowatt hours	14.12
Propane	Gallons	1.814
Gasoline	Gallons	1.443
Natural gas	1000 Cubic Feet	0.2026

\*Source: Estimating the Savings from Improving Pumping Plant Performance by UNL Irrigation Engineer, Derrel Martin

**Diesel Fuel Conversion for Center Pivots**

The 2019 crop production budgets with center pivot irrigation were developed with a pumping lift of 125 feet and 35 psi pressure to determine the amount of diesel fuel used per hour. *Table 5* was developed by Derrel Martin to determine the amount of diesel fuel for various pumping lifts and pressures to pump an acre-inch of water.

For example, the amount of diesel required to pump an acre-inch of water with 125 feet of lift at 35 psi is 1.88 gallons with a pump performance rating of 100 percent. If the producer has a lift of 300 feet and a pressure of 50 psi, the diesel fuel required at a performance rating of 100 percent is 3.79 gallons per acre-inch. If the rating on the producer's pump is 80 percent, the diesel fuel required will be 4.74 gallons per acre-inch of water.

With this information, the producer can calculate the additional cost since the diesel fuel required is now 4.74 gallons per acre-inch vs. 1.88 gallons per acre-inch. This is 2.86 gallons more per acre-inch. If a crop budget requires 9 inches, the additional diesel fuel would be 25.74 gallons of diesel at \$2.25/gallon (9 inches x 2.86 gallons). The producer's additional cost would be \$57.92/acre.

**Table 5. Table for adjusting the amount of diesel fuel required by center pivots for lifts and pressures other than the 125 feet of lift and 35 PSI used in the budgets. Gallons of diesel fuel required to pump an acre-inch of water at pump performance ratings of 100 percent\***

Lift Feet	Pressure at							
	10	20	30	35	40	50	60	80
0	0.21	0.42	0.63	0.74	0.84	1.05	1.26	1.69
25	0.44	0.65	0.86	0.97	1.07	1.28	1.49	1.91
50	0.67	0.88	1.09	1.20	1.30	1.51	1.72	2.14
75	0.89	1.11	1.32	1.43	1.53	1.74	1.95	2.37
100	1.12	1.33	1.54	1.65	1.75	1.97	2.18	2.60
125	1.35	1.56	1.77	1.88	1.98	2.19	2.40	2.83
150	1.58	1.79	2.00	2.11	2.21	2.42	2.63	3.05
200	2.03	2.25	2.46	2.57	2.67	2.88	3.09	3.51
250	2.49	2.70	2.91	3.02	3.12	3.33	3.54	3.97
300	2.95	3.16	3.37	3.48	3.58	3.79	4.00	4.42
350	3.40	3.61	3.82	3.93	4.03	4.25	4.46	4.88
400	3.86	4.07	4.28	4.39	4.49	4.70	4.91	5.33
*Multiplier when pumping plant performance rating is less than 100 percent.								
Rating %	100	90	80	70	60	50		
Multiplier	1.00	1.11	1.25	1.43	1.67	2.00		

\* Source: *Estimating the Savings From Improving Pumping Plant Performance* by UNL Extension Irrigation Specialist Derrel Martin.

**Table 6. Federal Crop Insurance premiums. Estimates for 2019 based on 2018 75% LP on Dryland Crops and 70% LP on Irrigated Crops (LP is Level by Practice).**

Budget	Dryland or Irrigated	Area	Yield	Per Acre Premium
1-Alfalfa	Dryland		N/A	N/A
2-Alfalfa	Dryland		N/A	N/A
3-Alfalfa	Dryland		N/A	N/A
4-Alfalfa	Dryland		N/A	N/A
5-Alfalfa	Dryland		N/A	N/A
6-Alfalfa	Irrigated		N/A	N/A
7-Alfalfa	Irrigated		N/A	N/A
8-Alfalfa	Irrigated	Panhandle	2.5 ton	N/A
9-Alfalfa	Dryland	State	4.4 ton	N/A
10-Alfalfa	Irrigated	State	6.7 ton	N/A
11-Alfalfa	Irrigated	State	6.8 ton	N/A
12-Alfalfa	Irrigated	Panhandle	6.6 ton	N/A
13-Alfalfa	Irrigated	State	6.6 ton	N/A
14-Alfalfa	Irrigated	State	6.8 ton	N/A
15-Corn	Dryland	State	90 bu	\$ 25.00
16-Corn	Dryland	State	100 bu	\$ 25.00
17-Corn	Dryland	Eastern	150 bu	\$ 15.00
18-Corn	Dryland	Eastern	160 bu	\$ 15.00
19-Corn	Dryland	State	125 bu	\$ 25.00
20-Corn	Dryland	Eastern	170 bu	\$ 15.00
21-Corn	Dryland	State	130 bu	\$ 25.00
22-Corn	Dryland	Eastern	175 bu	\$ 15.00
23-Corn	Dryland	State	135 bu	\$ 25.00
24-Corn	Dryland	Eastern	185 bu	\$ 15.00
25-Corn	Dryland	Southwest	125 bu	\$ 25.00
26-Corn	Irrigated	State	240 bu	\$ 8.00
27-Corn	Irrigated	State	250 bu	\$ 8.00
28-Corn	Irrigated	State	245 bu	\$ 8.00
29-Corn	Irrigated	Panhandle	190 bu	\$ 14.00
30-Corn	Irrigated	State	240 bu	\$ 8.00
31-Corn	Irrigated	State	245 bu	\$ 8.00
32-Corn	Irrigated	State	270 bu	\$ 8.00
33-Corn	Irrigated	State	230 bu	\$ 8.00
34-Corn	Irrigated	State	240 bu	\$ 8.00
35-Corn	Irrigated	Panhandle	190 bu	\$ 14.00
36-Corn	Irrigated	Panhandle	200 bu	\$ 14.00
37-Corn	Irrigated	State	235 bu	\$ 8.00
38-Corn	Irrigated	State	26 ton	\$ 8.00
39-Dry Beans	Irrigated	Panhandle	27 cwt	\$ 18.00
40-Dry Beans	Irrigated	Panhandle	27 cwt	\$ 18.00
41-Dry Beans	Irrigated	Panhandle	27 cwt	\$ 18.00
42-Dry Beans	Irrigated	Panhandle	27 cwt	\$ 18.00
43-Grain Sorghum	Dryland	Southwest	105 bu	\$ 20.00
44-Grain Sorghum	Dryland	State	125 bu	\$ 20.00
45-Grain Sorghum	Dryland	Southwest	115 bu	\$ 20.00
46-Grain Sorghum	Irrigated	State	165 bu	\$ 17.00
47-Grass	Irrigated		N/A	N/A
48-Grass Hay	Dryland	State	2.2 ton	N/A
49-Millet	Dryland	Panhandle	22 cwt	\$ 8.00
50-Millet	Dryland	Panhandle	22 cwt	\$ 8.00
51-Oats	Dryland	State	85 bu	\$ 7.00
52-Pasture	Irrigated	State	11 AUM	N/A
53-Peas	Dryland	Panhandle	35 bu	\$ 9.00
54-Sorghum-Sudan	Dryland	State	3.3 ton	N/A
55-Soybeans	Dryland	State	40 bu	\$ 15.00
56-Soybeans	Dryland	State	45 bu	\$ 15.00
57-Soybeans	Dryland	State	40 bu	\$ 15.00
58-Soybeans	Irrigated	State	62 bu	\$ 8.00
59-Soybeans	Irrigated	State	65 bu	\$ 8.00
60-Soybeans	Irrigated	State	70 bu	\$ 8.00
61-Soybeans	Irrigated	State	59 bu	\$ 8.00
62-Soybeans	Irrigated	State	73 bu	\$ 8.00
63-Sugarbeet	Irrigated	Panhandle	26 ton	\$ 27.00
64-Sugarbeet	Irrigated	Panhandle	26 ton	\$ 27.00
65-Sugarbeet	Irrigated	Panhandle	26 ton	\$ 27.00
66-Sugarbeet	Irrigated	Panhandle	26 ton	\$ 27.00
67-Sunflower	Dryland	Panhandle	13 cwt	\$ 17.00
68-Sunflower	Dryland	Panhandle	16 cwt	\$ 17.00
69-Sunflower	Irrigated	Panhandle	30 cwt	\$ 10.00
70-Wheat	Dryland	Southwest	55 bu	\$ 10.00
71-Wheat	Dryland	Panhandle	65 bu	\$ 8.00
72-Wheat	Dryland	Panhandle	60 bu	\$ 8.00
73-Wheat	Dryland	Panhandle	55 bu	\$ 8.00
74-Wheat	Dryland	Southwest	75 bu	\$ 8.00
75-Wheat	Irrigated	Panhandle	100 bu	\$ 6.00
76-Wheat	Irrigated	Panhandle	85 bu	\$ 6.00
77-Cover Crop			N/A	N/A
78-Cover Crop			N/A	N/A

Source: Crop insurance rates for various crops were provided by the Farm Credit Services of America, North Platte, NE office.