2023

Report to the

Farmland Advisory Committee

prepared for the

Utah Tax Commission

Ryan Larsen, Ph.D.,

And

Robert Lee, Research Associate

Department of Applied Economics

Utah State University

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Executive Summary

Summary of Study Recommendations: Changes in land values are recommended to the Utah State Tax Commission for the year 2023 because of the study for farmland production values. The data represents the 2022 production year values and the 2017 ag-census data.

Irrigated Cropland- Irrigated Cropland values should be increased in all counties in the State. Due to large amounts of alfalfa acreage in the State, any change in hay returns significantly impacts the average county land values. According to the USDA state information, Alfalfa sales accounted for approximately $598 million of revenue within the State of Utah. Wheat, the second highest crop produced, was almost $26 million. The average price of alfalfa received by producers increased again in the State for 2022. There was an increase in average production for alfalfa and barley and a decrease in the average production for the other major crops in the state. The cost of the inputs paid by producers also increased. That increase in costs did not overcome the increase in the price received. Therefore, an increase in land values across the State is proposed. The greatest percentage increase is 11.4 percent in Weber County, with the other counties in the State ranging between 2.2 percent and 10.8 percent.

Orchard Cropland- Proposed 2023 orchard land values should be decreased again across the State, based on the production of tart cherries, apples, and peaches. The greatest orchard land value change is a $23 dollar decrease in Washington County. There was a decrease in the average yield for tart cherries and peaches. There was also a decrease in the average price received for tart cherries and peaches. In addition to average prices falling and average yields decreasing, production costs increased by almost 2 percent. Tart cherries are the leading fruit product grown in the State, affecting the average price and average production the greatest.

Meadow Cropland- The 2023 meadow land values for all counties in the State should have an increase in land values.

Dry Cropland-There should be an increase in most values recommended for the dryland acreage within the State. Beaver, and San Juan counties class 4 dryland values, and Daggett, Emery, Piute, Sevier, and Wayne counties class 3 and 4 dryland values should not change.

***Grazing Land*-** Most of the grazing land values in the State should show an increase for 2023

***Nonproductive Land*-** No change in value for nonproductive land is recommended for 2023.

Table 1.

Summary of all 2023 proposed Utah land values.

2023 Land Values													
	Irrigated Land Values				Grazing Land Values				Dry Land Values		Meadow	Non	Orchard
County	I	II	III	IV	I	II	III	IV	III	IV		Prod.	Land
Beaver	0	533	439	363	67	21	16	5	49	14	225	5	291
Box Elder	722	635	498	413	67	21	15	5	84	53	232	5	317
Cache	642	548	415	322	66	21	13	5	110	76	246	5	291
Carbon	498	395	265	169	49	14	12	5	46	14	125	5	291
Daggett	0	0	0	179	49	13	11	5	0	0	147	5	0
Davis	793	698	562	468	57	18	12	5	48	14	251	5	318
Duchesne	0	461	324	227	65	18	13	6	52	18	159	5	291
Emery	472	380	238	149	66	20	13	6	0	0	131	5	291
Garfield	0	0	199	107	73	21	14	5	45	14	99	5	291
Grand	0	365	232	141	74	21	14	5	46	14	127	5	291
Iron	756	664	526	431	71	21	14	5	46	14	249	5	291
Juab	0	418	283	187	61	17	13	5	49	14	144	5	291
Kane	393	304	168	75	71	23	14	5	45	14	102	5	291
Millard	750	658	521	423	72	23	14	6	44	13	184	5	291
Morgan	0	0	369	274	65	21	12	6	63	25	189	5	291
Piute	0	0	315	219	85	24	16	5	0	0	180	5	291
Rich	0	0	168	77	60	19	12	5	45	14	100	5	0
Salt Lake	656	563	430	332	65	18	14	5	51	16	210	5	291
San Juan	0	0	149	67	64	21	13	5	46	17	0	5	291
Sanpete	0	512	377	282	59	17	13	6	52	18	185	5	291
Sevier	0	543	403	309	62	17	13	6	0	0	193	5	291
Summit	0	433	297	203	68	19	13	5	45	14	190	5	291
Tooele	0	419	281	192	68	19	13	5	49	14	174	5	291
Uintah	0	0	349	259	76	26	18	6	52	18	196	5	291
Utah	707	610	470	376	61	22	13	5	48	14	235	5	321
Wasatch	0	459	319	226	49	15	12	5	45	14	198	5	291
Washington	615	524	385	291	61	20	12	6	45	13	216	5	346
Wayne	0	0	310	219	83	26	16	5	0	0	163	5	291
Weber	785	688	547	447	68	19	13	6	78	42	293	5	318

Introduction

This report represents the fifteenth annual report to the Farmland Advisory Committee recommending "productive values" for lands that qualify for the Farmland Assessment Act (FAA). The methodology used to derive the suggested values is summarized below. The relevant statutes for this work are provided in Appendix A. Instructions relative to the make-up of the various land classes can be found at http://propertytax.utah.gov/standards/standard07.pdf (Land classification guidelines for each classification of agricultural land, Property Tax Division's Standards of Practice, Tax Commission Website).

Summary of General Approach Adopted

Agricultural land values are not easily derived because land market *values* reflected in farm sales typically include the potential value for alternative development, existing land ownership patterns, location, and environmental amenities. Even when sold for continued agricultural use, these lands may have intrinsic values associated with farm expansion, location considerations, and unique characteristics that limit the usefulness of such data in assessing actual farm production values. Finally, the actual market involving agricultural land sales is very thin (i.e., few sales occur), and sale values for one area would not necessarily reflect the values of similar farmland in another area due to differences in climate, productive capacity, crop mix, etc.

Lease data might be an alternative method of calculating agricultural land values. However, even in areas where leases occur, the market is thin and comparable leases are challenging to come by, and even some lease conditions are made because of local considerations. Finally, the application of a lease rate in one area of the State would not likely be appropriate for other regions in the State. There is too much variation in conditions to allow an overall comparison.

Unfortunately, this means that it is generally not possible to get an accurate idea of agricultural land values directly from market signals. Thus, an alternative approach that is theoretically consistent with market values is needed.

Partial Budgeting

The theoretically consistent approach selected for this analysis is identifying the present value of agricultural-producing lands based strictly on the use of that land in agricultural production. The best estimate of the value of alfalfa-producing land should be based on land whose sole function is producing alfalfa hay. The present value of the *future flow of returns less costs* should represent the per acre value of land in agricultural production for a particular county for a specific land type. Returns and costs are brought to the present point using a discounting process, reflecting the "time value of money."[1] Discounting is widely accepted as the correct approach to evaluate costs and returns at different times. This method eliminates the vagaries of location, proximity to other properties, unique location characteristics, etc.

Partial budgeting is used to determine the net returns for each crop or land use. Given the information available, this involves determining localized costs and localized prices, at least as much as possible. Crop mixes vary by county. Some counties have a very limited agricultural complex (Daggett County). In contrast, other counties have a more significant number of different crops (Box Elder County), so it is crucial that these county-by-county differences be taken into account. Due to existing data limitations, the smallest sized unit that can be specified is the county level. Unfortunately, gathering data, even on a county basis, is becoming more difficult due to the USDA's disclosure rules, prohibiting data release wherein individual producers could be identified. This county-wide value approach admittedly precludes consideration of many within-county variations or changes. For example, suppose a significant portion of the county farmland still relies on flood irrigation. In that case, the land value will be partly based on flood irrigation, even if some producers utilize more costly wheel lines or irrigation circles.

Though desirable, it is a complicated and costly process to develop county-level crop budgets annually for the most critical crops on a county-by-county basis, so budgets are being developed on an ongoing basis—a few counties yearly. We currently have over 100 different crop budgets that must be updated. The budgets not developed for the current year using producer panels need to be updated using available information on both the price and cost sides. Using the current updating process, it is possible that the budgets being used for any one county will be five to six years old, depending on how many county budgets can be developed each year. However, all land values are updated to the 2022 production year.

[1] The *time value of money* is based on our actions wherein we prefer payment today rather than the same payment at a later point in time.

A somewhat unique situation exists for fruit budgets as there is an extended time frame for startup and production—up to 25 years. This requires a different budgeting process using a discounting process. These budgets are more difficult to develop for each county, yet they must be updated regularly. Again, some crop budgets could be five to six years old and will require updating through the process described below for those crop budgets that are not current.

***Outline of Process Used in Determining Agricultural Land Values*:**

A general overview of the steps followed in making these recommendations follows. The approach requires finding the present value of acreage-weighted net returns for various crops. This allows us to develop county-specific land value estimates when used only for crop production. This removes the value of development potential, unique land characteristics, location in a county, and many other factors that influence land values.

1. The analysis begins with developing or updating individual crop budgets. With the budget allocated for this work, it is impossible to update the individual, county-specific budgets for each of the major crops for each county every year. Well over 100 budgets must be developed, and we are updating the budgets on a 5-6-year cycle. For the revised budgets, we use the cost information directly for the year in question. Still, for those budgets that have not been updated that year, we use the National Agricultural Statistical Service's (NASS) "producer prices paid" indices to update the costs in the older crop budgets to the current year. To access the updated budgets, please visit the following website: https://apecextension.usu.edu/htm/agribusiness.

2. We use a five-year average of commodity prices and a five-year average of yields (obtained from NASS, USDA, or state sources) to determine the gross return from each crop.

3. Most current cost data are used because time series data on actual costs do not exist. These costs are adjusted for county-to-county differences where possible.

4. These costs (excluding any return to land) are subtracted from the total revenue. This represents the net returns per acre for any crop.

5. The crop mix for any county is determined from the most recent U.S. Census of Agriculture, which is taken every five years. This is where the proportional acreage devoted to each crop can be determined.

6. The county-level value is developed by taking each crop's net return times the proportion of acreage in each crop. For instance, if the net return from an acre of alfalfa was $200 and 75% of the county's acreage was devoted to alfalfa. The net return per acre of grain (the only other crop grown in this fictitious county) was $75. It comprised the remaining 25% of the county's agricultural land; the weighted average value of agriculture in this county would be: (.75) x ($200) + (.25) x ($75) ≅ $169/acre.

7. The annual value of $169/acre net of land costs would then be determined by assuming that acre provided the same value over time and discounting this sum of values using an interest rate (longer-term investments) determined by gathering data on long-term borrowing as obtained from public and proprietary records. Using this discount (or interest) rate, the net returns are entered into an Excel spreadsheet, and the value is discounted or brought to a present value. This then becomes the average value of the land base in that county.

Of course, no county is this simple. In some counties, more than a dozen crops are grown, and county-specific budgets must be made for each. But these are the general steps in determining per-acre land values used solely for agricultural production.

Valuing Land in Agricultural Production

Five areas warrant special attention to accurately reflect land value in agricultural production—prices, costs, yields, crop mix, and data limitations.

(1) ***Changing Prices.*** The first area that needs to be considered for changes in crop budgets is commodity prices or returns. As prices rise, the net value of the crop in question also rises (assuming costs remain fixed). The net value declines when prices fall and other factors are fixed. Agricultural commodity prices have been quite variable historically, and such variability is difficult to deal with, both as producers and assessors. To temper annual price declines and increases, we have determined that a five-year average of prices results in sufficient stability in assessment values and associated taxes.

It is essential to remember that while this approach adds some stability to the value of agricultural land when prices are *increasing*, a five-year average of past prices will mean that the most current five-year average will be *below* that of the most recent price. When prices decline, the current five-year average will lie above the recent price.

For example, if hay prices have averaged $75, $85, $95, $105, and $115 per ton over the past five years, the price that would be used in the crop budget would be ($75 + $85 + $95 + $105 + $115)/5 = $95/ton (which is considerably *lower* than the two most recent years). On the other hand, if the prices over the past five years had averaged $115, $105, $95, $85, and $75, then the average price would still be $95/ton; however, please note that it is considerably *higher* than the last two years. This is simply the result of the averaging process utilized.

Furthermore, even if prices have *declined* in the most recent year, the overall price average will depend on the price dropped from the calculation six years earlier and the price added in the most current year.

For example, if the previous five years of prices (*excluding* the most recent price) were $3/bu., $6/bu., $5/bu., $5/bu., and $5/bu., respectively, the average price would be (3 + 6 + 5 + 5 + 5)/5 = $4.80/bu. If the most recent price is $4/bu., the latter five-year average price will still be *higher* than in the earlier period due to the deletion of the $3/bu. and the addition of the $4/bu., i.e., (6 + 5 + 5 + 5 + 4)/5 = $5.00/bu. Hence, although the price declined in the most recent year, the average did not drop since the $4/bu. the price that was added was still higher than the $3/bu. price that was dropped. This potentially can happen with any crop.

The important point is that using a five-year average minimizes year-to-year changes in land values. This helps to stabilize land values for tax purposes. **Table 2** shows a five-year average and the annual change for the state-wide price data for Utah's major crops for 2021 to 2022.

Table 2	**Producer prices received for Utah's major crops**					
	2022-2021 Annual and average percentage change					
	Ave. Price	**Annual Price**				
	Change	**Change**			**2022**	**2021**
Alfalfa	13.0%	29.0%			$ 298.00	$ 231.00
Barley	16.7%	36.0%			$ 6.80	$ 5.00
Corn(grain)	10.2%	13.3%			$ 6.80	$ 6.00
Corn(silage)	13.0%	29.0%			$ 83.56	$ 64.77
Safflower	0.8%	44.8%			$ 30.40	$ 21.00
Wheat(all)	15.5%	15.5%			$ 8.20	$ 7.10
Onions	26.6%	-8.3%			$ 32.20	$ 35.10

Table 3 includes the prices received by producers, the annual price change percentage change, and a five-year average percentage change for tart cherries, apples, and peaches using 2021 to 2022 prices.

Table 3	Producer prices received for Utah's fruit crop					
	2022-2021 Annual and average percentage change					
	Ave. Price	Annual Price				
	change	change			2022	2021
Tart Cherries	-8.0%	2.8%			$ 0.26	$ 0.25
Apples	0.0%	3.9%			$ 0.32	$ 0.31
Peaches	-5.0%	12%			$ 1,060.00	$ 943.00

(1) Changing Costs. The second area that needs updating in the crop budgets is that of costs. When input costs increase, the net returns of a particular land use decline (assuming prices remain constant). While costs usually do not change as rapidly as prices, they still change and are almost always upward (at least over the past few decades). Therefore, costs associated with various production elements also need to be adjusted to get an accurate estimate of land's "current" value in agricultural production.

Data for updating costs are available in the "*producer's prices paid*" indices published by ERS, USDA, and NASS, USDA.[2] We only consider the most recent year's cost changes because of the rapid changes in input prices (i.e., fertilizer, fuel, pesticides, etc.). This means there is a conservative bias in the approach used to determine prices versus the approach used to determine costs, i.e., we average past prices but use only the most current costs.

The primary justifications for adopting this approach are that: (a) there are no *time series* data sources readily available that show the type of county-level data needed for such averaging and (b) since production costs are almost always increasing, taking a five-year average of production costs would consistently understate the actual costs of doing business. There is more justification to consider a rolling five-year average for prices, which move up and down than costs. A summary of the percentage change in nationwide costs for inputs used in the major crop categories is shown below in **Table 4**.

[2] Economic Research Service (ERS) and National Agricultural Statistical Service (NASS), U.S. Department of Agriculture, Washington, D.C.

Table 4	National Cost of Inputs	
Fertilizer		**up 11 percent**
Chemicals		**up 44 percent**
Fuel		**up 14 percent**
Machinery		**up 11 percent**
Feed		**up 14 percent**
Seed		**up 1 percent**
Consumer Price Index		**up 6.5 percent**

Based on USDA information, the national average cost for all production inputs for Utah's typical crops showed an increase of (9.6%) from the previous year.

Consumer Price Index (CPI) changes are also shown for comparative purposes. The CPI index (6.5%) rose along with production costs.

(2) ***Crop Yields.*** The third area of consideration is the yield of each crop, as this also helps determine the actual value of land kept in agricultural production. Yield changes directly impact the net returns of various crops, whether grains, forages, or fruit. By necessity, we have had to rely on those crops for which annual yields are reported. Because of the small number of acres planted, some crops are not included in the annual crop yields. Yields are quite variable and a five-year average on per acre yields has also been used. This also helps to stabilize farm values over time. Some crops are particularly susceptible to yield fluctuations, e.g., dryland wheat. Still, the vagaries of weather and precipitation almost always bring about a change in all crop yields from year to year**.** The yields for Utah's crops and the average yield changes are shown in **Table 5.**

Table 5	Ave Yield Change	2022	2021	2020	2019	2018
Alfalfa	1.03%	3.9	3.7	3.8	3.85	3.38
Barley	1.67%	82	81	85	93	86
Corn(grain)	-1.21%	165	179	149	143	182
Corn(silage)	-0.84%	24	24	23	24	23
Wheat	-6.23%	36	46	53	54	52
Safflower	-11.27%	530	460	820	1050	840
Onions	-0.99%	506	500	566	542	506

(3) ***Crop Mix.*** The fourth item that needs to be considered is the change in crop mix on a county-by-county level. Shifts in crop mix are difficult to capture on a year-to-year basis because data on crop mixes are determined through the five-year agricultural census. The 2017 Ag-census numbers were used in the calculation of the land values. Additional crops such as hemp are being produced within the State of Utah, as more of these crops increase in the ag-census we will include them in our land value calculations. A new census is to be completed next year.

To illustrate how the crop mix impacts the suggested values, consider a county where only three crops are produced, all under irrigation: alfalfa hay, wheat, and barley. If the net change in crop values were +3%, +5%, and -1%, respectively, and the crop mix consisted of 75% of the land being planted in alfalfa, 10% in wheat, and 15% in barley, then the suggested land value for that county would change by taking a weighted average of the three net changes: (.75 x 3)+(.10 x 5) + (.15 x -1) = 2.60 (or a net increase in assessed value of 2.6% for that county and acreage configuration). Alfalfa acreage is dominant in virtually all counties and its price continues to dominate that for wheat, barley, and other crops. The only exception is for a small number of counties with a relatively large percentages of fruit acreage.

(4) ***Dated Prices and Costs*** – *2022 Crop Year.* Finally, it needs to be remembered that price and cost data remain *dated* in the sense that the only complete data we have available now (in *2023*) are for the *2022* crop year. Hence, the net return in 2023 may differ from that found in this report. Further complicating matters is the fact that this year's reported values will not become effective until 2024, leaving us two years behind what the actual crop picture might be. There does not appear to be any acceptable way around this problem and the only thing that can be said is that *net* returns typically do not change by large amounts following the approach adopted.

General Trends Affecting Productive Land Values

As implied above, several factors have influenced the suggested FAA land values for the 2023 reporting year: prices, costs, crop mix, and productivity or yields.

Crop prices. Prices received by producers for the field crops for the 2022 report were up using the average price. Onions had the highest percent increase in the average price received. The average price for grain corn had the smallest increase. The price received by farmers for the major Utah crops for 2018 through and 2022 with the average percentage changes contained in **Table 6**. The average price taking out the larger swings in price that may occur year to year.

Table 6	Prices received by producers for Utah's major crops (with average annual percentage change)						
	Ave. Price	2022	2021	2020	2019	2018
	Change					
Alfalfa	18.5%	$ 289.00	$ 231.00	$ 185.00	$ 182.00	$ 170.00
Barley	18.0%	$ 6.80	$ 5.00	$ 3.95	$ 3.80	$ 3.35
Corn(grain)	13.6%	$ 6.80	$ 6.00	$ 4.95	$ 4.40	$ 4.50
Corn(silage)	18.5%	$ 83.56	$ 64.77	$ 51.80	$ 50.96	$ 46.67
Safflower	12.5%	$ 30.40	$ 21.00	$ 19.00	$ 17.10	$ 16.20
Wheat(all)	13.8%	$ 8.20	$ 7.10	$ 5.75	$ 4.95	$ 6.45
Onions	25.7%	$ 32.20	$ 35.10	$ 19.50	$ 11.20	$ 11.50

Tart cherries are the primary fruit crop in the State of Utah, therefore, the change in tart cherries has the greatest effect on the orchard land value. Average prices received by producers were down for tart cherries and peaches. The average percentage change and prices received by producers are shown in **Table 7**. With the discontinuing of state data for apples, and peaches. National data was used for price and production for those commodities. The 2017 state census information was used for all orchard crop production lands.

	Prices received for Utah's fruit crop (average percentage change)					
	Ave. Price	2022	2021	2020	2019	2018
	change					
Tart Cherries	-4.2%	$ 0.26	$ 0.25	$ 0.17	$ 0.16	$ 0.22
Apples	0.1%	$ 0.32	$ 0.31	$ 0.30	$ 0.34	$ 0.31
Peaches	-4.6%	$ 1,060.00	$ 943.00	$ 1,430.00	$ 788.00	$ 801.00

Cost Changes. Input costs were all higher in 2022. The cost of fuel, fertilizer, seed, machinery, feed, and chemicals all increased. The total change in the price of the inputs had a net effect of a (9.6) nine-point six percent increase in the cost of production. (**Table 4**).

***Crop Yields*.** Average crop yield changes from 2021 to 2022 were mixed, with the average yield of corn for grain increasing. Average yield for alfalfa, barley, wheat, safflower, and onions decreased. Average corn for silage yield remained the same. (**Table 8**). The greatest average decrease was safflower with a (7.7) seven-point seven percent decrease. Again, using the average took out much of the swings.

Table 8	**Yield per acre for Major Utah Crops**					
	2022-2021 Average and Annual change					
	Ave. Yield	**Annual Yield**				
Crop	**Change**	**Change**			**2022**	**2021**
Alfalfa	-0.05%	4.9%			3.88 ton	3.7 ton
Barley	-0.23%	1.2%			82 bu.	81 bu.
Corn(grain)	0.40%	-7.8%			165 bu.	179 bu.
Corn(silage)	0.0%	0.0%			24 ton	24 ton
Wheat	-5.10%	-21.7%			36 bu.	46 bu.
Safflower	-7.70%	15.2%			530 bu.	460 bu.
Onions	-1.50%	1.2%			505.9 bu.	500 bu.

The five-year average cherry production yields decreased, along with the average yield of peaches. The five-year average production of apples remained the same in 2022. The total 2021 and 2022 production, the annual percentage change, and five-year average are shown in (**Table 9**).

Table 9	**Utah Fruit Production**					
	2022-2021 (average percentage change)					
	Ave. Yield	**Annual Yield**				
	Change	**Change**			**2022**	**2021**
Tart Cherries (lbs.)	-5.44%	-32.34%			22,600,000	33,400,000
Apples	2.47%	-0.41%			33,800	33,940
Peaches (tons)	-0.14%	-6.80%			8.63	9.26

Crop Mix. The mix of crops on a county-by-county basis is based on the 2017 census data (2017, NASS). The 2017 census information showed changes in the crop mix in many of the counties in the State. There was not a large shift to a single crop, just a subtle movement of one crop to another. A new census will be done next year and we will again update the crop mixed based on the most recent information

Summary. As an illustration of the process used in calculating changes in net returns, if the average price of a particular crop mix *increased* 8%, yields *increased* by 1%, the crop mix was *unchanged* from year to year, and costs *were up* by 7%, land values would *increase* by approximately 2%.

Suggested Land Values

Irrigated Land

Alfalfa remains the crop with the largest acreage devoted to it throughout Utah. Because of the relatively large proportion of acreage producing alfalfa, changes in alfalfa hay production tend to dominate the overall land values county-by-county. Average yield decreased for alfalfa, wheat, safflower, onions, and barley in 2022. Grain corn yields increased in average yield. The average yield for corn silage remained the same. The average price received by producers in the State increased in 2022 for all crops. The cost of production increased nationally by nine-point six percent. These factors resulted in a proposed increase in most land values across the State.

Orchard Land

The average yields for tart cherry production in the State were down in 2022, with peaches decreasing nationally and apples increasing. The costs of production increased nationally, and average prices received by producers decreased for tart cherries, and peaches. Nationally apple prices increased slightly. Thereby causing a proposed decrease in orchard land values across the State of Utah.

M*eadow Land*

An increase in the land values for meadow land are recommended in the State.

Dry Land

An increase in land values for select counties with dry land are recommended.

Grazing Lands

The two most significant factors impacting the value of grazing land are the level of precipitation received and the price or value of cattle. The chart below **(Figure 2.)** summarizes five year's county-by-county precipitation levels as a percent (%) of "normal." Note that these data do not provide detail on when the precipitation was received, which can also impact productivity. Furthermore, the level of rainfall even changes within individual counties, and these data apply only to certain county rain gauge areas.

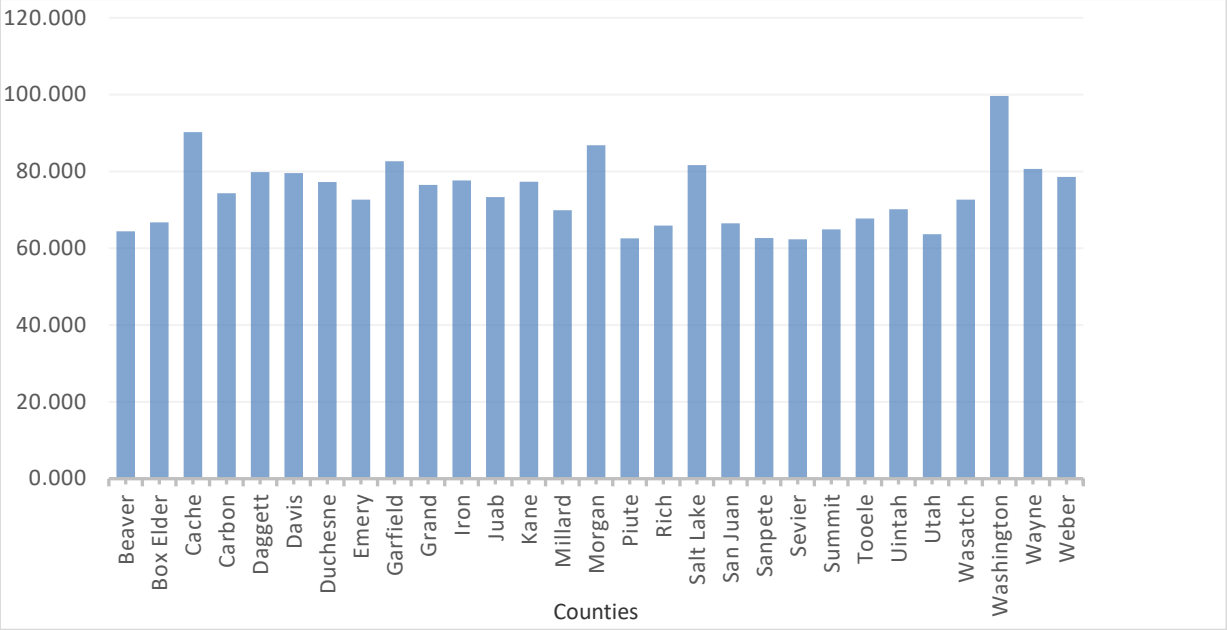

Figure 2. County Five-year Precipitation Average, 2018-2022[3].

Most of the counties in the State received less than average precipitation when considering a five-year running average. However, over the last few years, the numbers have been getting closer to an average normal. Piute county received the lowest average precipitation during the previous five years. In addition to precipitation, the price of cattle has been increasing over the last several years. Therefore, a slight increase in grazing land is proposed for most of the grazing land in the state.

Nonproductive Land

No change is recommended for land that is in the nonproduction category.

[3] Data collected from USU Climate Center.

Suggestions for Additional Work

We will continue working with the USU Extension agricultural agents to develop accurate crop budgets for each of the counties in the State. The process adopted at the county level is to bring together a group of representative landholders to work out localized budgets under the direction of the USU Extension County agriculture agents, who, in turn, work under the supervision of the Applied Economics Department at Utah State University. In addition, we adjust the budgets for any known factors that influence the returns and/or costs of production. This should enhance producer acceptance of the budgeted values.

We will continue to monitor the changes to the crop mix with the new agricultural census and include the new crops being produced and the changes in the mix that they may cause.

A consolidation of the 2023 proposed land values is included in **Table 1**. More detailed information in terms of the actual proposed land values and changes for all land classes and types for 2023 recommendations and 2022 land values are provided in **Appendix A**.

Appendix A: Values of Land in Alternative Uses

Irrigated Farm Land: Irrigated farmland values were increased in all counties throughout the State for 2023. Weber County had the greatest increase of $80 dollars. 2023 values along with the 2022 value as shown in **Table A1**. For those counties without any land in a class, a value of zero is given consistent with previous reports.

Table A1. Irrigated Farmland, Classes I through IV.

2022-2023 Irrigated Lands								
	2022	2023	2022	2023	2022	2023	2022	2023
County	I	I	II	II	III	III	IV	IV
Beaver	0	0	515	533	425	439	351	363
Box Elder	680	722	598	635	469	498	389	413
Cache	588	642	502	548	380	415	295	322
Carbon	453	498	359	395	241	265	154	169
Daggett	0	0	0	0	0	0	163	179
Davis	724	793	637	698	513	562	427	468
Duchesne	0	0	418	461	294	324	206	227
Emery	429	472	345	380	216	238	135	149
Garfield	0	0	0	0	181	199	97	107
Grand	0	0	332	365	211	232	128	141
Iron	688	756	604	664	479	526	392	431
Juab	0	0	383	418	259	283	171	187
Kane	358	393	277	304	153	168	68	75
Millard	681	750	598	658	473	521	384	423
Morgan	0	0	0	0	333	369	247	274
Piute	0	0	0	0	287	315	200	219
Rich	0	0	0	0	153	168	70	77
Salt Lake	618	656	531	563	405	430	313	332
San Juan	0	0	0	0	146	149	66	67
Sanpete	0	0	465	512	342	377	256	282
Sevier	0	0	490	543	364	403	279	309
Summit	0	0	394	433	270	297	185	203
Tooele	0	0	383	419	257	281	175	192
Uintah	0	0	0	0	317	349	235	259
Utah	649	707	560	610	431	470	345	376
Wasatch	0	0	418	459	290	319	206	226
Washington	559	615	476	524	350	385	264	291
Wayne	0	0	0	0	282	310	199	219
Weber	705	785	618	688	491	547	401	447

The largest increase of any land type is in Weber County class I land with an increase of $80 per acre. All irrigated land value changes are shown in table A2 below.

Table A2. Specific Changes in Irrigated Farmland Values.

2023 Irrigated Land Change				
County	I	II	III	IV
Beaver	0	18	14	12
Box Elder	42	37	29	24
Cache	54	46	35	27
Carbon	45	36	24	15
Daggett	0	0	0	16
Davis	69	61	49	41
Duchesne	0	43	30	21
Emery	43	35	22	14
Garfield	0	0	18	10
Grand	0	33	21	13
Iron	68	60	47	39
Juab	0	35	24	16
Kane	35	27	15	7
Millard	69	60	48	39
Morgan	0	0	36	27
Piute	0	0	28	19
Rich	0	0	15	7
Salt Lake	38	32	25	19
San Juan	0	0	3	1
Sanpete	0	47	35	26
Sevier	0	53	39	30
Summit	0	39	27	18
Tooele	0	36	24	17
Uintah	0	0	32	24
Utah	58	50	39	31
Wasatch	0	41	29	20
Washington	56	48	35	27
Wayne	0	0	28	20
Weber	80	70	56	46

Orchard Land

Land values for orchard lands decreased in all counties for the 2023 report. The largest decrease recommended is $23.00 in Washington County, as shown in **Table A3**.

Table A3. Suggested Changes in 2023 Orchard Land Values.

Orchard Land Values

County	2022 Value	2023 Value
Beaver	311	291
Box Elder	338	317
Cache	311	291
Carbon	311	291
Daggett	0	0
Davis	340	318
Duchesne	311	291
Emery	311	291
Garfield	311	291
Grand	311	291
Iron	311	291
Juab	311	291
Kane	311	291
Millard	311	291
Morgan	311	291
Piute	311	291
Rich	0	0
Salt Lake	311	291
San Juan	311	291
Sanpete	311	291
Sevier	311	291
Summit	311	291
Tooele	311	291
Uintah	311	291
Utah	343	321
Wasatch	311	291
Washington	369	346
Wayne	311	291
Weber	340	318

Orchard Value Change

County	Value Change
Beaver	-20
Box Elder	-21
Cache	-20
Carbon	-20
Daggett	0
Davis	-22
Duchesne	-20
Emery	-20
Garfield	-20
Grand	-20
Iron	-20
Juab	-20
Kane	-20
Millard	-20
Morgan	-20
Piute	-20
Rich	0
Salt Lake	-20
San Juan	-20
Sanpete	-20
Sevier	-20
Summit	-20
Tooele	-20
Uintah	-20
Utah	-22
Wasatch	-20
Washington	-23
Wayne	-20
Weber	-22

*When a county has no acres of a given class of land, a $0 taxable value is listed.

Meadow Land

Proposed meadow land values increased across the State, the largest increase being $30.00 per acre in Weber County are shown in **Table A4**.

Table A4. Suggested Values and change in Meadow Land, 2022-2023.

2023 Meadow Land Values

	2022	2023
County		
Beaver	218	225
Box Elder	218	232
Cache	225	246
Carbon	114	125
Daggett	134	147
Davis	229	251
Duchesne	144	159
Emery	119	131
Garfield	90	99
Grand	116	127
Iron	227	249
Juab	132	144
Kane	93	102
Millard	167	184
Morgan	171	189
Piute	164	180
Rich	91	100
Salt Lake	198	210
San Juan	0	0
Sanpete	168	185
Sevier	174	193
Summit	173	190
Tooele	159	174
Uintah	178	196
Utah	216	235
Wasatch	180	198
Washington	196	216
Wayne	148	163
Weber	263	293

Meadow Land Change

County	
Beaver	7
Box Elder	14
Cache	21
Carbon	11
Daggett	13
Davis	22
Duchesne	15
Emery	12
Garfield	9
Grand	11
Iron	22
Juab	12
Kane	9
Millard	17
Morgan	18
Piute	16
Rich	9
Salt Lake	12
San Juan	0
Sanpete	17
Sevier	19
Summit	17
Tooele	15
Uintah	18
Utah	19
Wasatch	18
Washington	20
Wayne	15
Weber	30

*When a county has no acres of a given class of land, a $0 taxable value is listed.

Dry Farm Land

An increase in dry farm land values is proposed in some counties for 2023 as shown in **Table A5**.

Table A5. Suggested Values for Dry Farm Land, 2022-2023.

2023 Dry Farm Land Values

	2022	2023	2022	2023
County	III	III	IV	IV
Beaver	47	49	14	14
Box Elder	79	84	50	53
Cache	101	110	70	76
Carbon	42	46	13	14
Daggett	0	0	0	0
Davis	44	48	13	14
Duchesne	47	52	16	18
Emery	0	0	0	0
Garfield	41	45	13	14
Grand	42	46	13	14
Iron	42	46	13	14
Juab	45	49	13	14
Kane	41	45	13	14
Millard	40	44	12	13
Morgan	57	63	23	25
Piute	0	0	0	0
Rich	41	45	13	14
Salt Lake	48	51	15	16
San Juan	45	46	17	17
Sanpete	47	52	16	18
Sevier	0	0	0	0
Summit	41	45	13	14
Tooele	45	49	13	14
Uintah	47	52	16	18
Utah	44	48	13	14
Wasatch	41	45	13	14
Washington	41	45	12	13
Wayne	0	0	0	0
Weber	70	78	38	42

*When a county has no acres of a given class of land, a $0 taxable value is listed.

The largest proposed increase in dry land values is $9 per acre in Cache County as can be seen in **Table A6**.

Table A6. Specific 2023 Proposed Changes in Dry Land Values.

Dry Farm Land Change

County	III	IV
Beaver	2	0
Box Elder	5	3
Cache	9	6
Carbon	4	1
Daggett	0	0
Davis	4	1
Duchesne	5	2
Emery	0	0
Garfield	4	1
Grand	4	1
Iron	4	1
Juab	4	1
Kane	4	1
Millard	4	1
Morgan	6	2
Piute	0	0
Rich	4	1
Salt Lake	3	1
San Juan	1	0
Sanpete	5	2
Sevier	0	0
Summit	4	1
Tooele	4	1
Uintah	5	2
Utah	4	1
Wasatch	4	1
Washington	4	1
Wayne	0	0
Weber	8	4

Grazing Land

There is a proposed increase in grazing land values in most classes and counties in the State as shown in **Table A7**.

Table A7. Suggested 2022-2023 Grazing Land Values.

	2022	2023	2022	2023	2022	2023	2022	2023
County	I	I	II	II	III	III	IV	IV
Beaver	65	67	20	21	15	16	5	5
Box Elder	63	67	20	21	14	15	5	5
Cache	60	66	19	21	12	13	5	5
Carbon	45	49	13	14	11	12	5	5
Daggett	45	49	12	13	10	11	5	5
Davis	52	57	16	18	11	12	5	5
Duchesne	59	65	16	18	12	13	5	6
Emery	60	66	18	20	12	13	5	6
Garfield	66	73	19	21	13	14	5	5
Grand	67	74	19	21	13	14	5	5
Iron	65	71	19	21	13	14	5	5
Juab	56	61	16	17	12	13	5	5
Kane	65	71	21	23	13	14	5	5
Millard	65	72	21	23	13	14	5	6
Morgan	59	65	19	21	11	12	5	6
Piute	78	85	22	24	15	16	5	5
Rich	55	60	17	19	11	12	5	5
Salt Lake	61	65	17	18	13	14	5	5
San Juan	63	64	21	21	13	13	5	5
Sanpete	54	59	15	17	12	13	5	6
Sevier	56	62	15	17	12	13	5	6
Summit	62	68	17	19	12	13	5	5
Tooele	62	68	17	19	12	13	5	5
Uintah	69	76	24	26	16	18	5	6
Utah	56	61	20	22	12	13	5	5
Wasatch	45	49	14	15	11	12	5	5
Washington	55	61	18	20	11	12	5	6
Wayne	76	83	24	26	15	16	5	5
Weber	61	68	17	19	12	13	5	6

An increase of $7.00 in class one land value in Garfield, Gand, Millard, Piute, Uintah, Wayne, and Weber Counties is the largest proposed increase as can be seen in **Table A8.**

Table A8. Specific Proposed 2023 Changes in Grazing Land Value.

County	I	II	III	IV
Beaver	2	1	1	0
Box Elder	4	1	1	0
Cache	6	2	1	0
Carbon	4	1	1	0
Daggett	4	1	1	0
Davis	5	2	1	0
Duchesne	6	2	1	1
Emery	6	2	1	1
Garfield	7	2	1	0
Grand	7	2	1	0
Iron	6	2	1	0
Juab	5	1	1	0
Kane	6	2	1	0
Millard	7	2	1	1
Morgan	6	2	1	1
Piute	7	2	1	0
Rich	5	2	1	0
Salt Lake	4	1	1	0
San Juan	1	0	0	0
Sanpete	5	2	1	1
Sevier	6	2	1	1
Summit	6	2	1	0
Tooele	6	2	1	0
Uintah	7	2	2	1
Utah	5	2	1	0
Wasatch	4	1	1	0
Washington	6	2	1	1
Wayne	7	2	1	0
Weber	7	2	1	1

Nonproductive Land

No changes are proposed again for nonproductive land for the 2023 report year as shown in **Table A9**.

Table A9. Suggested Value and Changes in Nonproductive Land, 2022-2023.

	2022	2023		Value
County				Change
Beaver	5	5		0
Box Elder	5	5		0
Cache	5	5		0
Carbon	5	5		0
Daggett	5	5		0
Davis	5	5		0
Duchesne	5	5		0
Emery	5	5		0
Garfield	5	5		0
Grand	5	5		0
Iron	5	5		0
Juab	5	5		0
Kane	5	5		0
Millard	5	5		0
Morgan	5	5		0
Piute	5	5		0
Rich	5	5		0
Salt Lake	5	5		0
San Juan	5	5		0
Sanpete	5	5		0
Sevier	5	5		0
Summit	5	5		0
Tooele	5	5		0
Uintah	5	5		0
Utah	5	5		0
Wasatch	5	5		0
Washington	5	5		0
Wayne	5	5		0
Weber	5	5		0