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Report to the Farmland Advisory Committee prepared for the Utah Tax Commission

by

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Executive Summary

Summary of Study Recommendations:

The proposed FAA values for 2014, which are based on this 2013 study, use 2012 crop year data since those are the only complete data available. The changes are summarized according to land use as follows. *Irrigated Cropland*- Irrigated land values decreased primarily due to declines in production and increase cost. Due to the preponderance of alfalfa acreage in most counties in the state, any negative changes in hay returns have a large impact on average county irrigated land values. The largest decreases occurred in Box Elder, Iron, and Salt Lake Counties. The average decline across all counties was approximately 6%. *Orchard Cropland*- Orchard land values declined throughout the state due to reductions in yield and prices on several orchard crops. Costs continued to increase and also played a role in declining orchard land values. Declines were fairly even across the state. *Meadow Cropland*- Meadow land values were also impacted by the decreasing value of feeds and forages and increasing costs, though only marginal changes in value are suggested in this report. The largest decrease in suggested land values was -$5/acre. *Dry Cropland-* Decreases are recommended for dry land acreage throughout the state. Increasing grain prices were more than offset by proportionate increases in costs. *Grazing Land-* Grazing land values were negatively impacted by other forage prices, precipitation levels, livestock prices, and production costs. *Non Production Land-* No change in value for nonproduction land has been recommended.

Outline of Process Used in Determining Agricultural Land Values:

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

1. The analysis begins with development or updating of individual crop budgets. It is not possible with the budget allocated for this work to update the individual, county-specific budgets for each of the major crops for each county every year. There are well over 100 budgets that have to be developed and so we are updating the budgets on a 5-6 year cycle.

   For the updated budgets, we use the cost information directly for the year in question, but 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 existing updated budgets, please go to the following website: https://apecextension.usu.edu/htm/agribusiness.

It should be noted that these budgets represent county-level returns and cost, but they are derived in part using state-wide, and even national-level, data. They are adjusted for county-level characteristics, such as elevation, growing season days, water availability, etc. By their very nature, they do not represent individual producers' returned and costs.

2. We use a five-year average of commodity prices and a five-year average of yields (both 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 (exclusive of 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 5 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 and the net return per acre of grain (the only other crop grown in this fictitious county) was $75 and 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 particular 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 one of them. But these are the

general steps followed in determining per acre land values used solely for agricultural production purposes.

Introduction

This report represents the eighteenth annual *draft* 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 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 landownership patterns, location, and even 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 comparables are difficult 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 areas 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 that of identifying the present value of agricultural-producing lands based strictly on the use of that land in agriculture production. That is, the best estimate of the value of alfalfa-producing land

should be based on land whose sole function is producing alfalfa hay. In fact, the present value of the *future flow of returns less costs* should be *representative* of 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 in time using a *discounting* process, which reflects the "time value of money."[1] Discounting is widely accepted as the correct approach to evaluate costs and returns that occur at different points in time. This method eliminates the vagaries of location, proximity to other property, unique location characteristics, etc.

Partial budgeting is the tool used in determining the net returns for each crop or land use. This involves a determination of *localized costs* and *localized prices*, at least as much as possible given the information available. Crop mixes vary by county. Some counties have a very limited agricultural complex (Daggett County); while others have a large number of different crops (Box Elder County), so it is very important that these county-by-county differences be taken account of. The smallest sized unit that can be specified is the county level due to existing data limitations. Unfortunately, gathering data even on a county basis is becoming more difficult due to the USDA's disclosure rules which prohibit the release of data wherein individual producers could be identified. This county-wide value approach admittedly precludes consideration of many within-county variations or changes. For example, if the majority of the county still relies on flood irrigation, this means that the land value will be based in part on flood irrigation, even if some producers utilize more costly wheel lines or irrigation circles.

Though desirable, it is a complex and costly process to develop county-level crop budgets annually for the most important crops on a county-by-county basis, so budgets are being developed on an ongoing basis—a few counties every year. We currently have well over 100 different crop budgets that have to be updated. The budgets that are not developed for the current year using producer panels have to be updated using available information on both the price side and the cost side. Using the current updating process, it is possible that the some 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 older budget values are updated to the 2012 production year.

A somewhat unique situation exists for fruit budgets as there is a long 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 also need to be updated on a regular basis. Again, some crop budgets could be

[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.

five to six year old and will require updating through the process described below for those crop budgets which are not current.

Valuing Land in Agricultural Production

In order to accurately reflect the value of land in agricultural production, five areas warrant special attention—prices, costs, yields, crop mix, and temporal 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). When prices fall, the net value declines, other factors fixed. Agricultural commodity prices have been quite variable historically and such variability is difficult to deal with, both as producers and as assessors. In order to temper annual price declines and increases, we have determined that a five-year average of prices result in sufficient stability in assessment values and associated taxes.

It is very important 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 are *declining*, the most current five-year average will lie *above* the most 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 5 years had averaged $115, $105, $95, $85, and $75, then the average price would still be $95/ton, but 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 that was *dropped* from the calculation from six years earlier and the price that is 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, even though the price declined in the most recent year, the average did not go down since the $4/bu. 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 by using a five-year average, year-to-year changes in land values are minimized. This effectively stabilizes land values for tax purposes. **Table 1** shows the past six years of state-wide price data for Utah's major crops, and the percentage change for each crop from 2011 to 2012. In this situation, we would drop the 2007 price and add the 2012 price in the five-year average.

Table 1. Average Prices Received, Utah, 2007-2012.

	2007	2008	2009	2010	2011	2012	Percent Change
Alfalfa ($/ton)	129.00	97.00	113.00	104.00	186.00	189.00	Up 2
Barley ($/bu.)	3.99	4.41	2.25	3.10	5.60	5.90	Up 5
Corn (grain) ($/bu.)	4.18	4.40	4.35	5.75	6.75	7.70	Up 12
Corn(silage) ($/ton)	37.00	40.00	32.00	33.50	50.00	54.81	Up 9
Oats ($/bu.)	2.65	3.20	2.50	2.60	4.35	4.40	Up 1
Safflower ($/cwt.)	18.60	24.90	14.40	15.00	24.00	28.50	Up 16
Wheat ($/bu.)	8.30	7.97	6.30	7.10	8 .65	8.50	Down 2
Onions ($/cwt.)	6.15	13.40	8.95	13.20	10.03	12.50	Up 20

Table 2 includes the prices received for fruit crops since 2007. Table 2 also includes the percentage change for each fruit crop from 2007 to 2012, using the five year average numbers. In taking a five-year average for fruit prices for the current year, we drop 2007 fruit prices and added 2012 fruit prices in our calculations.

Table 2. Utah Fruit Prices, 2007-2012.

Fruit	Price/unit	2007	2008	2009	2010	2011	2012	Percent Change
Peaches All	cents / lb	33.35	86.80	52.0	34.51	50.00	54.00	Up 8
Cherries Sweet	$/ton	1,380.00	1,440.00	2,280.00	1,860.00	1,482.00	1450.00	Up 0.7
Cherries Tart	$/lb	0.25	0.33	0.27	0.27	.29	.51	Up 18
Apples(All)	$/lb	0.33	0.29	0.30	0.25	.22	.26	Down 5
Apricots	$/ton	815.00	468.00	862.00	432.00	1,288.00	919.00	Up 3

(2) *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 declines (assuming that prices remain constant). While costs usually do not change as

rapidly as prices, they still change and almost always in an upward direction (at least over the past few decades). Therefore, costs associated with various elements of production also need to be adjusted in order to get an accurate estimate of the "current" value of land in agricultural production.

Data for updating costs are available in the "*producer's prices paid*" indices published by ERS, USDA, and NASS, USDA.[2] Because of the steady growth in input prices (i.e., fertilizer, fuel, pesticides, etc.), we take account of only the most recent year's cost changes. This means that 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 (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 both up and down, than there is for costs. A summary of the percentage change in state-wide costs for inputs used in the major crop categories is shown below in **Table 3**.

Table 3. Cost of Basic Input Categories, 2011-2012	
Fertilizer	down 3.2 percent
Chemicals	up 3.4 percent
Fuel	down 4.2 percent
Machinery	up 3.2 percent
Seed	up 3.4 percent
Feed	up 26 percent
Herbicide	up 5.6 percent
Insecticide	up 6.0 percent
Consumer Price Index	**up 1.7 percent**

The overall total average cost increase for all production inputs for Utah's typical crops was approximately **6.2%**.

Consumer Price Index (CPI) changes are also shown for comparative purposes in blue font. The CPI index actually rose much more slowly (+1.7%) than did the cost of production items.

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

(3) Crop Yields. The third area of consideration is that of 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. Some crops simply are not included in an annual record of 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, but the vagaries of weather and precipitation almost always bring about a change in all crop yields from year to year**. (Table 4)**

Table 4. Utah Crop Yields 2007-2012.

Crop	2007	2008	2009	2010	2011	2012
Alfalfa (ton per acre)	4.0	4.2	4.2	4.0	4.1	3.6
Barley (bu. Per acre)	69	85	85	90	83	80
Grain Corn (bu. Per acre)	143	157	155	172	164	167
Silage Corn (ton per acre)	21	23	23	23	25	22
Oats (bu. Per acre)	80	75	81	74	81	76
Wheat (bu. Per acre)	41.0	41.4	49.5	48.7	49.4	45.4
Safflower (bu. Per acre)					880	400

(4) *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 new Ag-census will be taking place next year and we will be able to make the necessary adjustments to the crop mix.

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 relatively large percentages of fruit acreage.

(5) *Dated Prices and Costs – 2012 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 *2013*) are for the *2012* crop year. Hence, the actual net return in 2013 may be different than that found in this report. Further complicating matters is the fact that this year's reported values will not become effective until 2014, leaving us two years behind what the actual crop picture might be. There does not appear to 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 2013 reporting year: prices, costs, crop mix, and productivity or yields.

(1) *Crop prices.* Prices for crops in 2012 were up, with the exception of wheat which decreased 2 percent, using five-year averaging. The largest percentage increase occurred in corn used for grain which increased 12%, however the increase was not a major factor because of the relatively small number of acres produced. The other price changes were all less than 10% for the remaining crops. The small price increases could not keep pace with the input costs increase. The price received by farmers for the major Utah crops and the percentage changes in the five year average is contained in **Table 5**.

Table 5. Utah Crop Prices, 2011-2012.

Crop	2011 Prices	2012 Prices	Percentage Change
Alfalfa	$186.00	$189.00	up 2 percent
Barley	$ 5.60	$ 5.90	up 5 percent
Corn(grain)	$ 6.75	$ 7.70	up 12 percent
Corn(silage)	$ 50.00	$ 55.00	up 9 percent
Oats	$ 4.35	$ 4.40	up 1 percent
Wheat	$ 8.65	$ 8.50	down 2 percent

Fruit prices were mixed between 2011 and 2012. Apple prices decreased for the second year in a row in 2012 by 4.8 percent. Tart Cherry prices increased by 18 percent because of cold weather in Michigan, causing Utah to be the top producing state in 2012. **Table 6** includes the 2011 and 2012 prices producers received and the percentage change between the two years, using a five year average. Apples and tart cherries are the 2 primary fruit crops.

Table 6. Fruit Prices, 2011-2012 (five year average)			
	Price		
Fruit	2011	2012	Percentage Change*
Apricots	$ 762.40	$ 783.20	up 2.7
Sweet Cherries	$ 1,878.00	$ 1892.00	up 0.7
Tart Cherries	$ 0.28	$ 0.33	up 18
Apples	$ 0.28	$ 0.26	down 4.8
Peaches	$ 1027.00	$ 1109.00	up 8

*The changes in red are negative values.

(2) *Cost Changes.* Costs were mixed in 2012 with fuel and fertilizer both decreasing and chemicals, equipment, seed, herbicide, insecticide and feed all increasing (see **Table 3**). Interest rates were one of the production cost items that fell, as shown in **Figure 1**.

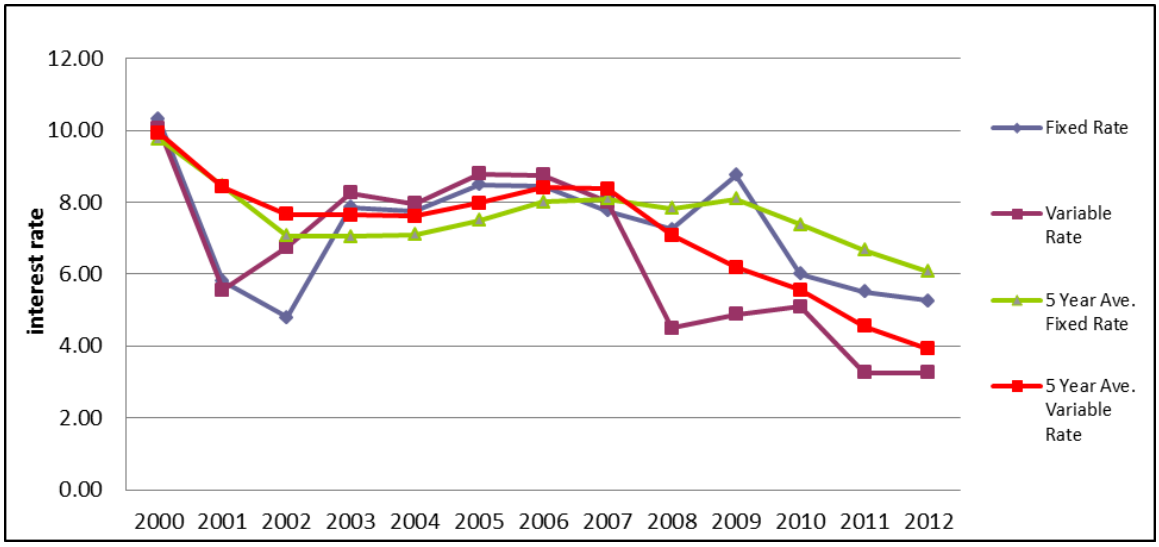

Figure 1. The historical moving average cost of capital, 2000-2012.

You can see the results of using a five year moving average instead of using the actual interest rate in this figure. The longer the time period, the fewer significant fluctuations you see. A five-year average typically allows sufficient fluctuation for year-to-year changes, but does not show the extreme changes that can occur year-to-year. The five-year averages are shown with green and red lines for fixed rates and variable rates, respectively.

(3) *Crop Yields*. Crop yield changes from 2011 to 2012 were mostly decreasing, with the one exception being corn grain (**Table 7**). However, grain corn

increased by less than one percent. The decreases were not very large in percentage terms, but nonetheless were reductions.

Table 7. Utah Crop Yields, 2011-2012 (Five Year Average)

Crop	2011 Yield	2012 Yield	% Change
Alfalfa	4.13 tons per acre	4.0 ton per acre	down 2.4
Barley	85.75 bu. per acre	84.6 bu. per acre	down 1.3
Corn(grain)	162 bu. per acre	163 bu. per acre	up 0.6
Corn(silage)	23.5 tons per acre	23.2 ton per acre	down 1.3
Oats	77.75 bu. per acre	77.4 bu. per acre	down 0.4
Wheat	47.75 bu. per acre	46.9 bu. per acre	down 0.8

Fruit production yields were mixed again in 2012, with apples decreasing while apricots, sweet and tart cherries, and peaches increasing (**Table 8**). The increase in tart cherry production came at an opportune time with production in other states lower than normal.

Table 8. Fruit Production, 2011-2012 (Five Year Average)

	Production		
Fruit Crop	2011	2012	% Change
Apricots (tons)	288	290	up 0.6
Sweet Cherries (tons)	942	952	up 1.1
Tart Cherries (lbs.)	26,600,000	30,300,000	up 15
Apples (lbs.)	12,560,000	11,566,000	down 8
Peaches (tons)	4,740	4,880	up 3

The effects of the yield changes are also accounted for in the suggested land values. The decrease in apple production will have a negative effect on land values because apples account for 52 percent of all fruit production in the state, followed by tart cherries at 25 percent, peaches at 18.5, with sweet cherries and apricots accounting for the remaining 4.5 percent.

Crop Mix. The mix of crops on a county-by-county basis is based on the 2007 census data (2007, NASS). We are currently working with NASS personnel to ensure the proper crop mix will be represented now and in the future. The new census next year (2014) will provide us the information we need to keep the proper crop mix represented.

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%. Net return changes (after accounting for increased costs) ranged from -7.6% for wheat to +15% for tart cherries. The major contributor to the decrease in land values was a 6.2% decrease in alfalfa values as well as the decrease in wheat and barley values, those being major crops after alfalfa in several counties.

Suggested Land Values

Irrigated Land

Irrigation methods continue to change in many counties [e.g., Cache and Box Elder counties]. More center pivot and wheel line systems have been put into place and fewer hand lines and less flood irrigation methods are being used. This influences the cost of production and this change is being incorporated in current and future reports as our update of counties continues. Once again, increased pumping depths are not considered. This obviously impacts pumping costs and likely understates the cost associated with irrigation for some counties (e.g., Iron and Millard).

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. The increase in the price received for alfalfa hay was not enough to overcome the increase in the cost of production and a decrease in its yield. The result is a decrease in the land values where alfalfa is a major crop. The second largest crop is typically dependent on the county considered, however all major crops with the exception of oats and grain corn had a negative effect on irrigated land values.

As a result of the changes in prices, costs, yields, and the current crop mix. *Decreases* in values are suggested for irrigated land at the county level. The largest decrease in land value occurred in Salt Lake County and was a -$53/acre.

Orchard Land

Yields for all fruit production in the state increased in 2012 with the exception of apples. Average prices increased for apricots, peaches, sweet and tart cherries. The average price decreased for apples. Once again, apples and tart cherries are the two major fruit crops and their net returns tend to dominate those of the other fruits. The largest decline in orchard land was -$15 per acre in Washington County.

Meadow Land

Only slight changes were needed in the land values for meadow land in some of the counties. Even though beef prices were high, hay prices were also high, resulting in little change in meadow land values. These two items, usually working in opposite directions,

typically are used in determining meadow value. They are also then compared to local grazing values. The largest decline, comprising -$5 per acre, occurred in Weber County.

Dry Land

The level of precipitation over a 5 year average, ending in 2012, varied depending on the portion of the state you were in as usual. However, most areas still received insufficient precipitation, where "1.0" is used to denote average precipitation over five years (see **Figure 2**). The yields associated with dryland wheat and barley yields along with alfalfa yields declined slightly between 2011 and 2012. **(Table 6)** (As noted above, you can have a decline in yields but whether the five-year average declines depends on the yield in the year you are adding.) Prices for dryland wheat decreased, 2012's price was 2% lower than the price received in 2011. Alfalfa prices increased from 2011 to 2012, but only by small percent. Cost increases were greater than price increases for the dryland crops. The largest per acre decrease of -$8/acre was for Cache County.

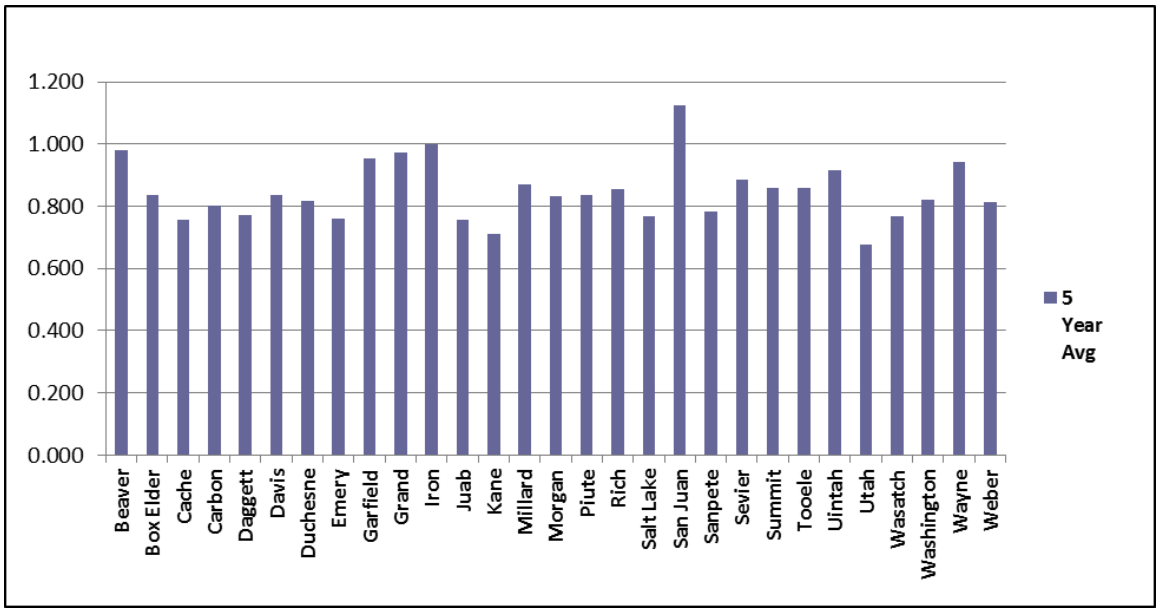

Figure 2. County Five-year Precipitation Average, 2007-2012.

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. **Figure 2** summarizes five years' 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 precipitation even changes within individual counties and these data apply only to certain county rain gauge areas.

Most of the counties in the state received less than average precipitation when considering a five-year running average. Beaver, Garfield, Grand, Iron, and Wayne counties were the only ones close to being average. The only county receiving more than an average level over the last 5 years is San Juan County. On average, Utah and Kane Counties have received the lowest precipitation over the last 5 years. The only decline in grazing land values was a -$1 for class I land.

Non-Production Ground

No change is recommended for ground that is non-production.

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 are using a new budgeting program and it has now been modified to fit Utah's situation. The budgets will be much more similar now that we have this budgeting program in place for Utah's producers.

Budget updates, 5-8 for each county, for an additional 5-6 counties are expected to be updated this next year, which may bring about some changes in land values. Updating all of these budgets is a time intensive activity and that is why it continues over a 5 to 6 year period.

A consolidation of the proposed per acre land values is included in **Table 8**. More detailed information in terms of what actual increases/decreases are proposed for 2013 recommendations is provided in **Appendix B**.

Table 8. 2013 Proposed Farmland Assessment Per Acre Values.*

County	Irrigated				Orchard				Meadow	Grazing				Dry Farm		Non Prod
	I	II	III	IV	I	II	III	IV		I	II	III	IV	III	IV	
Beaver	0	0	574	472	574	574	574	574	243	74	23	17	6	53	16	5
Box Elder	820	720	567	468	622	622	622	622	262	75	23	18	5	96	60	5
Cache	707	603	458	355	574	574	574	574	271	72	24	16	5	121	85	5
Carbon	525	418	277	178	574	574	574	574	131	52	16	13	5	50	15	5
Daggett	0	0	0	195	0	0	0	0	161	53	15	12	5	0	0	5
Davis	870	764	615	514	627	627	627	627	274	61	20	13	5	52	16	5
Duchesne	0	490	344	241	574	574	574	574	168	69	23	14	5	54	20	5
Emery	504	406	255	158	574	574	574	574	140	72	22	15	6	0	0	5
Garfield	0	0	213	115	574	574	574	574	105	79	24	17	5	49	15	5
Grand	0	389	245	149	574	574	574	574	135	80	23	16	6	50	15	5
Iron	801	701	557	455	574	574	574	574	264	76	23	16	6	50	15	5
Juab	0	450	303	201	574	574	574	574	154	65	20	14	5	51	16	5
Kane	422	324	179	82	574	574	574	574	110	74	24	16	5	49	15	5
Millard	804	705	558	454	574	574	574	574	197	78	25	17	5	48	14	5
Morgan	0	0	391	289	574	574	574	574	199	68	22	14	6	65	29	5
Piute	0	0	336	235	574	574	574	574	193	91	27	19	6	0	0	5
Rich	0	0	179	83	0	0	0	0	106	66	21	14	5	49	15	5
Salt Lake	710	610	464	360	574	574	574	574	228	69	22	15	5	54	16	5
San Juan	0	0	181	83	586	586	586	586	0	79	26	17	5	55	18	5
Sanpete	0	542	397	298	574	574	574	574	196	63	19	14	5	55	20	5
Sevier	0	567	422	324	574	574	574	574	201	64	19	14	5	0	0	5
Summit	0	466	317	220	574	574	574	574	204	73	21	15	5	49	15	5
Tooele	0	456	305	208	574	574	574	574	189	72	21	14	5	52	15	5
Uintah	0	0	375	277	574	574	574	574	209	83	29	20	6	55	20	5
Utah	755	653	501	403	631	631	631	631	253	66	24	14	5	51	16	5
Wasatch	0	492	342	244	574	574	574	574	211	52	18	13	5	49	15	5
Washington	659	561	413	310	679	679	679	679	231	65	22	14	5	49	14	5
Wayne	0	0	332	234	574	574	574	574	174	90	29	19	5	0	0	5
Weber	808	709	564	461	627	627	627	627	303	71	21	15	6	78	45	5

*A zero is shown for any counties not having land of a particular class.

Appendix A

2013 State Farmland Evaluation Advisory Committee
Applicable Statutes and Administrative Rules as of 9/30/2013

State of Utah Law
Utah Code Annotated 59-2-514. State Farmland Evaluation Advisory Committee -- Membership -- Duties.

(1) There is created a State Farmland Evaluation Advisory Committee consisting of five members appointed as follows:

(a) one member appointed by the commission who shall be chairman of the committee;

(b) one member appointed by the president of Utah State University;

(c) one member appointed by the state Department of Agriculture and Food;

(d) one member appointed by the state County Assessors' Association; and

(e) one member actively engaged in farming or ranching appointed by the other members of the committee.

(2) The committee shall meet at the call of the chairman to review the several classifications of land in agricultural use in the various areas of the state and recommend a range of values for each of the classifications based upon productive capabilities of the land when devoted to agricultural uses. The recommendations shall be submitted to the commission prior to October 2 of each year.

R884. Tax Commission, Property Tax.
R884-24P. Property Tax.
R884-24P-72. State Farmland Evaluation Advisory Committee Procedures Pursuant to Utah Code Ann. Section 59-2-514.
(1) "Committee" means the State Farmland Evaluation Advisory Committee established in Section 59-2-514.
(2) The committee is subject to Title 52, Chapter 4, Open and Public Meetings Act.
(3) A committee member may participate electronically in a meeting open to the public under Section 52-4-207 if:
(a) the agenda posted for the meeting establishes one or more anchor locations for the meeting where the public may attend;
(b) at least one committee member is at an anchor location; and
(c) all of the committee members may be heard by any person attending an anchor location.

Title 52 Public Officers
Chapter 4 Open and Public Meetings Act
Section 104 Training.
52-4-104. Training.
The presiding officer of the public body shall ensure that the members of the public body are provided with annual training on the requirements of this chapter.

Utah Code §59-2-505
The county assessor shall consider only those indicia of value that the land has for agricultural use as determined by the commission when assessing land . . . that meets the requirements of Section 59-2-503 to be assessed under this part.

R884-24P-53 Valuation Guides for Valuation of Land Subject to the Farmland Assessment Act Pursuant to Utah Code Ann. Section 59-2-515
http://www.tax.utah.gov/commission/effective/r884-24p-053.pdf

APPENDIX B: Values of Land in Alternative Uses

Irrigated Farm Land

Irrigated farmland decreased in value in all counties as shown in the following **Table B1**. For those counties without any land in a particular class, a value of zero is given consistent with previous reports.

Table B1. Irrigated Farmland Per Acre Values, Classes I through IV.

	2011	2012	2011	2012	2011	2012	2011	2012
County	**I**	**I**	**II**	**II**	**III**	**III**	**IV**	**IV**
Beaver	0	0	0	0	610	574	502	472
Box Elder	872	820	766	720	603	567	498	468
Cache	752	707	642	603	487	458	378	355
Carbon	560	525	446	418	295	277	190	178
Daggett	0	0	0	0	0	0	208	195
Davis	914	870	803	764	646	615	540	514
Duchesne	0	0	523	490	367	344	257	241
Emery	537	504	432	406	272	255	169	159
Garfield	0	0	0	0	227	213	122	114
Grand	0	0	414	389	261	245	158	149
Iron	851	800	746	701	593	557	484	455
Juab	0	0	477	450	321	303	213	201
Kane	449	422	345	324	191	180	87	82
Millard	853	804	748	705	592	558	482	454
Morgan	0	0	0	0	416	391	308	290
Piute	0	0	0	0	358	336	250	235
Rich	0	0	0	0	191	179	89	83
Salt Lake	763	710	656	610	499	464	387	360
San Juan	0	0	0	0	195	181	89	83
Sanpete	0	0	576	542	422	397	317	298
Sevier	0	0	602	567	448	422	343	323
Summit	0	0	497	466	338	317	234	219
Tooele	0	0	487	456	326	305	222	208
Uintah	0	0	0	0	397	374	293	276
Utah	801	755	693	653	531	501	427	403
Wasatch	0	0	524	492	364	342	260	244
Washington	703	659	599	561	440	412	331	310
Wayne	0	0	0	0	354	332	250	235
Weber	856	808	751	709	597	564	487	460

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

The largest change for any land type was -$53/acre for Salt Lake County as shown in **Table B2**. Nevertheless, all per acre values for all classes in all counties have declined.

Table B2. Specific Changes in Irrigated Farmland Per Acre Values.*

County	I	II	III	IV
Beaver	0	0	-36	-30
Box Elder	-52	-46	-36	-30
Cache	-45	-39	-29	-23
Carbon	-35	-28	-18	-12
Daggett	0	0	0	-13
Davis	-44	-39	-31	-26
Duchesne	0	-33	-23	-16
Emery	-33	-26	-17	-10
Garfield	0	0	-14	-8
Grand	0	-25	-16	-9
Iron	-51	-45	-36	-29
Juab	0	-27	-18	-12
Kane	-27	-21	-11	-5
Millard	-49	-43	-34	-28
Morgan	0	0	-25	-18
Piute	0	0	-22	-15
Rich	0	0	-12	-6
Salt Lake	-53	-46	-35	-27
San Juan	0	0	-14	-6
Sanpete	0	-34	-25	-19
Sevier	0	-35	-26	-20
Summit	0	-31	-21	-15
Tooele	0	-31	-21	-14
Uintah	0	0	-23	-17
Utah	-46	-40	-30	-24
Wasatch	0	-32	-22	-16
Washington	-44	-38	-28	-21
Wayne	0	0	-22	-16
Weber	-48	-42	-33	-27

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

Orchard Land

Land values for orchard lands declined in all counties. Even though production of some fruits increased, such as per cherries and apples, cost increases more than offset production or price increases as noted in **Table B3**.

Table B3. Suggested Changes in Orchard Per Acre Land Values, Classes I-IV.

	2011	2012	2011	2012	2012	2012	2011	2012
County	**I**	**I**	**II**	**II**	**III**	**III**	**IV**	**IV**
Beaver	588	574	588	574	588	574	588	574
Box Elder	637	622	637	622	637	622	637	622
Cache	588	574	588	574	588	574	588	574
Carbon	588	574	588	574	588	574	588	574
Daggett	0	0	0	0	0	0	0	0
Davis	642	627	642	627	642	627	642	627
Duchesne	588	574	588	574	588	574	588	574
Emery	588	574	588	574	588	574	588	574
Garfield	588	574	588	574	588	574	588	574
Grand	588	574	588	574	588	574	588	574
Iron	588	574	588	574	588	574	588	574
Juab	588	574	588	574	588	574	588	574
Kane	588	574	588	574	588	574	588	574
Millard	588	574	588	574	588	574	588	574
Morgan	588	574	588	574	588	574	588	574
Piute	588	574	588	574	588	574	588	574
Rich	0	0	0	0	0	0	0	0
Salt Lake	588	574	588	574	588	574	588	574
San Juan	600	586	600	586	600	586	600	586
Sanpete	588	574	588	574	588	574	588	574
Sevier	588	574	588	574	588	574	588	574
Summit	588	574	588	574	588	574	588	574
Tooele	588	574	588	574	588	574	588	574
Uintah	588	574	588	574	588	574	588	574
Utah	647	631	647	631	647	631	647	631
Wasatch	588	574	588	574	588	574	588	574
Washington	696	679	696	679	696	679	696	679
Wayne	588	574	588	574	588	574	588	574
Weber	642	627	642	627	642	627	642	627

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

The largest decline in per acre fruit value was $17/acre for Washington County as noted in **Table B4**.

Table B4. Specific Changes in Orchard Per Acre Values, Classes I-IV.

County	I	II	III	IV
Beaver	-14	-14	-14	-14
Box Elder	-15	-15	-15	-15
Cache	-14	-14	-14	-14
Carbon	-14	-14	-14	-14
Daggett	0	0	0	0
Davis	-15	-15	-15	-15
Duchesne	-14	-14	-14	-14
Emery	-14	-14	-14	-14
Garfield	-14	-14	-14	-14
Grand	-14	-14	-14	-14
Iron	-14	-14	-14	-14
Juab	-14	-14	-14	-14
Kane	-14	-14	-14	-14
Millard	-14	-14	-14	-14
Morgan	-14	-14	-14	-14
Piute	-14	-14	-14	-14
Rich	0	0	0	0
Salt Lake	-14	-14	-14	-14
San Juan	-14	-14	-14	-14
Sanpete	-14	-14	-14	-14
Sevier	-14	-14	-14	-14
Summit	-14	-14	-14	-14
Tooele	-14	-14	-14	-14
Uintah	-14	-14	-14	-14
Utah	-16	-16	-16	-16
Wasatch	-14	-14	-14	-14
Washington	-17	-17	-17	-17
Wayne	-14	-14	-14	-14
Weber	-15	-15	-15	-15

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

Meadow Land

Small declines in meadow land values are shown for the 2013 report year in Table B5.

Table B5. Suggested Changes in Meadow Land Per Acre Values, Class IV.

County	2011	2012
Beaver	247	243
Box Elder	266	262
Cache	275	271
Carbon	133	131
Daggett	163	161
Davis	278	274
Duchesne	170	168
Emery	142	140
Garfield	107	105
Grand	137	135
Iron	268	264
Juab	156	154
Kane	112	110
Millard	200	197
Morgan	202	199
Piute	196	193
Rich	108	106
Salt Lake	231	228
San Juan	0	0
Sanpete	199	196
Sevier	204	201
Summit	207	204
Tooele	192	189
Uintah	212	209
Utah	257	253
Wasatch	214	211
Washington	234	231
Wayne	177	174
Weber	311	306

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

The largest decline in meadow land value was $5/acre in Weber County as given in **Table B6**.

Table B6. Specific Changes in Meadow Land Per Acre Values.

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

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

Dry Farm Land

There were declines in dry farm land across all counties and this was largely a function of amount of precipitation received and increased costs as shown in **Table B7**.

Table B7. Suggested Changes in Dry Farm Land Per Acre Values, Classes III-IV.

	2011	2012	2011	2012
County	**III**	**III**	**IV**	**IV**
Beaver	56	53	17	16
Box Elder	102	96	64	60
Cache	129	121	90	85
Carbon	53	50	16	15
Daggett	0	0	0	0
Davis	55	52	17	16
Duchesne	58	54	21	20
Emery	0	0	0	0
Garfield	52	49	16	15
Grand	53	50	16	15
Iron	53	50	16	15
Juab	54	51	17	16
Kane	52	49	16	15
Millard	51	48	15	14
Morgan	69	65	31	29
Piute	0	0	0	0
Rich	52	49	16	15
Salt Lake	58	54	17	16
San Juan	59	55	19	18
Sanpete	58	55	21	20
Sevier	0	0	0	0
Summit	52	49	16	15
Tooele	56	52	16	15
Uintah	58	55	21	20
Utah	54	51	17	16
Wasatch	52	49	16	15
Washington	52	49	15	14
Wayne	0	0	0	0
Weber	83	78	48	45

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

The largest change in dry land values was -$8/acre in Cache County as noted in **Table B8.**

Table B8. Specific Proposed Changes in Dry Farm Land Per Acre Values.

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

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

Grazing Land

In general, grazing land values decreased slightly. Grazing land values are dependent on two primary factors: quantity (and quality) of the forage and the price of beef and sheep. Cattle and sheep prices rose during 2012, but production costs rose faster. While actual forage condition is dependent on precipitation, the value of grazing is also influenced by the price of other forages. This has resulted in slight decreases in grazing land values for Class I land as reported in **Table B9**.

Table B9. Suggested 2013 Changes in Grazing Land Per Acre Values, Classes I-IV.

	2011	2012	2011	2012	2011	2012	2011	2012
County	**I**	**I**	**II**	**II**	**III**	**III**	**IV**	**IV**
Beaver	74	73	23	23	17	17	6	6
Box Elder	78	77	24	24	18	18	5	5
Cache	74	73	24	24	16	16	5	5
Carbon	53	52	16	16	13	13	5	5
Daggett	55	54	15	15	12	12	5	5
Davis	63	62	20	20	13	13	5	5
Duchesne	71	70	23	23	14	14	5	5
Emery	74	73	22	22	15	15	6	6
Garfield	79	78	24	24	17	17	5	5
Grand	80	79	23	23	16	16	6	6
Iron	76	75	23	23	16	16	6	6
Juab	67	66	20	20	14	14	5	5
Kane	77	76	25	25	16	16	5	5
Millard	79	78	25	25	17	17	5	5
Morgan	69	68	22	22	14	14	6	6
Piute	93	92	27	27	19	19	6	6
Rich	67	66	21	21	14	14	5	5
Salt Lake	71	70	22	22	15	15	5	5
San Juan	79	78	26	26	17	17	5	5
Sanpete	65	64	19	19	14	14	5	5
Sevier	66	65	19	19	14	14	5	5
Summit	74	73	21	21	15	15	5	5
Tooele	73	72	21	21	14	14	5	5
Uintah	83	82	29	29	20	20	6	6
Utah	68	67	24	24	14	14	5	5
Wasatch	54	53	18	18	13	13	5	5
Washington	67	66	22	22	14	14	5	5
Wayne	91	90	29	29	19	19	5	5
Weber	71	70	21	21	15	15	6	6

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

The only per acre changes that are recommended are for Class I land.

Table B 10. Specific Proposed Changes in Grazing Land Per Acre Value.

County1	I	II	III	IV
Beaver	-1	0	0	0
Box Elder	-1	0	0	0
Cache	-1	0	0	0
Carbon	-1	0	0	0
Daggett	-1	0	0	0
Davis	-1	0	0	0
Duchesne	-1	0	0	0
Emery	-1	0	0	0
Garfield	-1	0	0	0
Grand	-1	0	0	0
Iron	-1	0	0	0
Juab	-1	0	0	0
Kane	-1	0	0	0
Millard	-1	0	0	0
Morgan	-1	0	0	0
Piute	-1	0	0	0
Rich	-1	0	0	0
Salt Lake	-1	0	0	0
San Juan	-1	0	0	0
Sanpete	-1	0	0	0
Sevier	-1	0	0	0
Summit	-1	0	0	0
Tooele	-1	0	0	0
Uintah	-1	0	0	0
Utah	-1	0	0	0
Wasatch	-1	0	0	0
Washington	-1	0	0	0
Wayne	-1	0	0	0
Weber	-1	0	0	0

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

Non-Production Land

No per acre changes are proposed for non-production land as shown in **Table B11**.

Table B11. Suggested Changes in Non-Production Per Acre Land Values.

	2011	2012
County		
Beaver	5	5
Box Elder	5	5
Cache	5	5
Carbon	5	5
Daggett	5	5
Davis	5	5
Duchesne	5	5
Emery	5	5
Garfield	5	5
Grand	5	5
Iron	5	5
Juab	5	5
Kane	5	5
Millard	5	5
Morgan	5	5
Piute	5	5
Rich	5	5
Salt Lake	5	5
San Juan	5	5
Sanpete	5	5
Sevier	5	5
Summit	5	5
Tooele	5	5
Uintah	5	5
Utah	5	5
Wasatch	5	5
Washington	5	5
Wayne	5	5
Weber	5	5

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