2014

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

by

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Executive Summary

Summary of Study Recommendations:

Changes in land values are recommended to Utah State Tax Commission for the 2015 tax year as a result of the values for production years 2009-2013. The changes are summarized according to land use as follows. *Irrigated Cropland*- Irrigated land values decreased slightly primarily due to declines in the prices received by producers for alfalfa. 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 Iron, Millard, Weber, and Cache Counties. The average decline across all counties was approximately 4.7%. *Orchard Cropland*- Orchard land values increased approximately 5% throughout the state due to an increase in both apple yield and prices. Apples have such an overriding impact on fruit values due to its dominance in most fruit producing counties. *Meadow Cropland*- Meadow land values were also negatively impacted by the decreasing value of feeds, forages and livestock. *Dry Cropland*: Decreases are recommended for dry land acreage throughout the state due to price decreases in grain and alfalfa prices. *Grazing Land*: Grazing land values were negatively impacted by the lower alfalfa prices, continued low precipitation levels, and decreased livestock prices. *Non Production Land*: No change in value for nonproduction land has been recommended.

Outline of Process Used in Determining Agricultural Land Values:

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. A general outline of the steps followed in making these recommendations is as follows.

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 in recent years, 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 and look

under "Budgets". You will find the most recent crop budgets under the picture and heading of "Crops." For those counties for which crop budgets are not updated, you will find individual crop budgets listed. While these budgets reflect county-level data, they are constructed in part using national and state-wide information.

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 for each crop.

3. Most current cost data are used because time series data on actual costs would be very costly and difficult to assemble. These costs are adjusted for county-to-county differences where possible.

4. The costs (exclusive of any returns 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. *The 2012 Agricultural Census was released too late to allow its incorporation of county-level crop mixes, but these changes will be incorporated in next year's report to the Commission.*

6. The county-level land 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 (opportunity cost of 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, up to a dozen different 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. It should also be noted that not every crop is included in each

county calculation because only those with the highest percentages of acreages actually influence average land values and budgets are not available on many specialty crops.

Introduction

This report represents the nineteenth (19th) 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 discussed 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 land ownership 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) across the state, and most certainly within counties, 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 simply 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 quite 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 overall 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 or Utah Counties), 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 most of the county still relies on flood irrigation, this means that the land value will be based primarily on flood irrigation, even if some producers utilize more costly wheel lines or irrigation circles. Adjustments can be made as budgets are updated and as new census data become available.

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 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, six, or even older, depending on how many county budgets can be developed each year. However, all older budget values are updated to the 2013 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 or more years 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 county-level farm crop budgets is crop 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 \$175, \$185, \$195, \$205, and \$215 per ton over the past five years, the price that would be used in the crop budget would be $(\$175 + \$185 + \$195 + \$205 + \$215)/5 = \$195$/ton (which is *lower* than the two most recent years). On the other hand, if the prices over the past 5 years had averaged \$215, \$205, \$195, \$185, and \$175, the average price would still be \$195/ton, but note that it is *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 2012 to 2013. In this situation, we would drop the 2008 price and add the 2013 price in the five-year average.

Table 1. Average Prices Received, Utah, 2008-2013 Average Prices.							
	2008	2009	2010	2011	2012	2013	Percent Change
Alfalfa ($/ton)	97.00	113.00	104.00	186.00	189.00	181.00	Down 4
Barley ($/bu.)	4.41	2.25	3.10	5.60	5.90	4.20	Down 40
Corn (grain) ($/bu.)	4.40	4.35	5.75	6.75	7.70	5.35	Down 44
Corn(silage) ($/ton)	40.00	32.00	33.50	50.00	54.81	42.00	Down 31
Oats ($/bu.)	3.20	2.50	2.60	4.35	4.40	4.30	Down 2
Safflower ($/cwt.)	24.90	14.40	15.00	24.00	28.50	25.50	Down 12
Wheat ($/bu.)	7.97	6.30	7.10	8 .65	8.50	8.10	Down 5
Onions ($/cwt.)	13.40	8.95	13.20	10.03	12.50	10.50	Down 19

Table 2 includes the prices received for fruit crops since 2008. Table 2 also includes the percentage change for each fruit crop from 2009 to 2013, using the five year average numbers. In taking a five-year average for fruit prices for the current year, we drop 2008 fruit prices and add in 2013 fruit prices in our calculations. The increase in apple price and production was so dramatic because the number that dropped out ($0.29) was much lower than the one that was added in ($0.48).

Table 2. Utah Fruit Prices, 2008-2013 Average Prices.								
Fruit	Price/unit	2008	2009	2010	2011	2012	2013	Percent Change
Peaches All	cents / lb.	86.80	52.0	34.51	50.00	54.00	54.00	Down 11
Cherries Sweet	$/ton	1,440.00	2,280.00	1,860.00	1,482.00	1450.00	2490.00	Down .5
Cherries Tart	$/lb.	0.33	0.27	0.27	0.29	0.51	0.48	Down 9
Apples(All)	$/lb.	0.29	0.30	0.25	0.22	0.26	0.48	Up 14
Apricots	$/ton	468.00	862.00	432.00	1,288.00	919.00	1010.00	Up 14

(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 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 is (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 nation-wide costs for inputs used in the major crop categories is shown below in **Table 3**.

Table 3. Cost of Basic Input Categories, 2012-2013	
Fertilizer	Down 14 percent
Chemicals	Up 2 percent
Fuel	Up 6.3 percent
Machinery	Down 2.8 percent
Seed	Up 2.3 percent
Feed	Down 14 percent
Herbicide	Up 2.7 percent
Insecticide	Up 2.9 percent
Consumer Price Index	**Up 1.5 percent**

Even though some costs rose and others declined, the *overall total average cost* for all production inputs for Utah's typical crops basically remained at the same level as the previous year. Consumer Price Index (CPI) changes are also shown for comparative purposes in blue font. The CPI index (1.5%) actually rose much more than did the cost of the production items, but then the CPI often follows producer price changes.

(2) 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

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

are reported. Some crops simply are not included in an annual record of yields. Yields are quite variable and a five-year average yield has also been used to help 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 2008-2013.						
Crop	2008	2009	2010	2011	2012	2013
Alfalfa (ton per acre)	4.2	4.2	4.0	4.1	3.6	3.7
Barley (bu. Per acre)	85	85	90	83	80	79
Grain Corn (bu. Per acre)	157	155	172	164	167	170
Silage Corn (ton per acre)	23	23	23	25	22	23
Oats (bu. Per acre)	75	81	74	81	76	62
Wheat (bu. Per acre)	41.4	49.5	48.7	49.4	45.4	44.5
Safflower (bu. Per acre)				880	400	570

(3) *Crop Mix.* The fourth item that needs to be considered in calculating land values 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 available only through the five-year agricultural census. The new Ag-census was released this year, but it was released too late to be incorporated in the calculation of the crop mix county-by-county. *The latest Ag Census data will be incorporated in the 2015 Tax Commission report.*

To illustrate how crop mix impacts suggested land 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 strongly 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.

(4) *Dated Prices and Costs – 2014 Report for the 2013 Crop Year.* Finally, it needs to be remembered that price and cost data remain *dated* in the sense that the only complete data we now have available (in *2014*) are for the *2013* crop year. Hence, the actual net return in 2014 may be different than that found in this report. Further complicating matter is the fact that this year's reported values will not

become effective until 2015, leaving us two years behind what the actual crop net returns 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 2014 reporting year: prices, costs, crop mix, and productivity or yields.

(1) *Crop prices.* Prices for most field crops in 2013 were lower than the previous year. The price of corn used for grain and the price of oats were the only two that slightly increased using the five year average. Barley decreased the greatest with an 11 percent decline in the five year average. The price received by farmers for the major Utah crops for 2012 and 2013 and the five year average percentage changes are contained in **Table 5**.

Table 5. Utah Crop Prices, 2012-2013.

Crop	2012 Prices	2013 Prices	Percentage Change (five year average.)
Alfalfa	$189.00	$ 181.00	Down 3 percent
Barley	$ 5.90	$ 4.20	Down 11 percent
Corn(grain)	$ 7.70	$ 5.35	Up 1 percent
Corn(silage)	$ 55.00	$ 42.00	Down 2 percent
Oats	$ 4.40	$ 4.30	Up 3 percent
Wheat	$ 8.50	$ 8.10	Down 1 percent

Fruit prices were mixed between 2012 and 2013. Apple prices increased by almost fourteen and one half percent and apricots increased by almost fourteen percent. Tart Cherry prices increased by nearly nine percent, while peaches decreased by 11.8%. The 2012 and 2013 prices producers received and the percentage change between the two years, using a five year average are shown in **Table 6**. Apples and tart cherries are the 2 primary fruit crops in the state of Utah.

Table 6. Fruit Prices, 2012-2013 (Five Year Averages)

Fruit	Price		
	2012	2013	Percentage Change*
Apricots	$ 783.20	$ 891.60	Up 13.8
Sweet Cherries	$ 1892.00	$ 1901.71	Up 0.5
Tart Cherries	$ 0.33	$ 0.36	Up 8.9
Apples	$ 0.26	$ 0.30	Up 14.4
Peaches	$ 1109.00	$ 978.20	Down 11.8

*The changes in red are negative values.

(2) *Cost Changes.* Costs were mixed in 2013 with feed, machinery and fertilizer all decreasing and chemicals, equipment, seed, herbicide, insecticide all increasing. The changes in the input prices had a net effect of no change for the cost of production. (**Table 3**). Interest rates are one of the production cost items that continued to fall as illustrated in **Figure 1**.

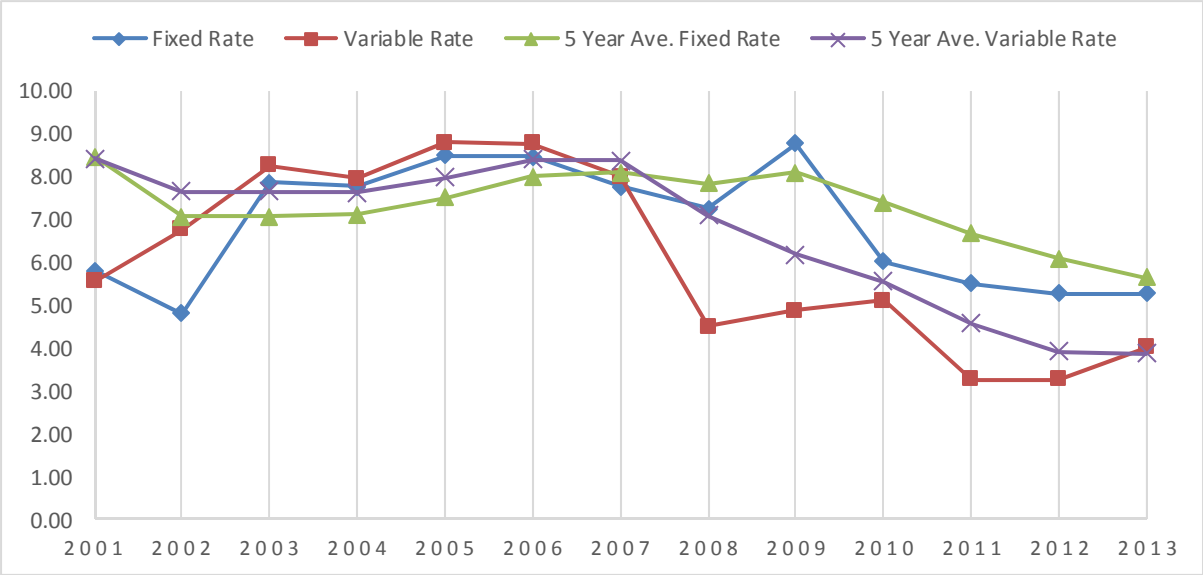

Figure 1. The historical moving average cost of capital, 2001-2013.

You can see the results of using a five year moving average instead of using the actual interest rate in **Figure 1**. 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 and variable interest rates, respectively.

(3) *Crop Yields*. Crop yield changes from 2012 to 2013 mostly decreased, with only wheat and oats increasing less than two percent. Corn silage yields remained the same. (**Table 7**). None of the yield increases were very large, and the decrease in alfalfa had a greater effect because of the number of acres in alfalfa production in the state and within counties.

Table 7. Utah Crop Yields, 2012-2013 (Five Year Averages)			
Crop	**2012 Yield**	**2013 Yield**	**% Change**
Alfalfa	4.0 ton per acre	3.9 ton per acre	down 2.1
Barley	84.6 bu. per acre	83.4 bu. per acre	down 1.4
Corn(grain)	163 bu. per acre	165.6 bu. per acre	up 1.6
Corn(silage)	23.2 ton per acre	23.2 ton per acre	no change
Oats	77.4 bu. per acre	74.8 bu. per acre	down 3.3
Wheat	46.9 bu. per acre	47.5 bu. per acre	up 1.3

Fruit production yields all increased in 2013, with the exception of apricots. The large increase in sweet cherries and the large decrease in apricot production did not affect the land values greatly because of the limited number of acres in those fruit production. The increase in apple production had a greater affect. (**Table 8**)

Table 8. Fruit Production, 2012-2013 (Five Year Averages)			
	Production		
Fruit Crop	**2012**	**2013**	**% Change**
Apricots (tons)	290	235	Down 19
Sweet Cherries (tons)	952	1,108	Up 16
Tart Cherries (lbs.)	30,300,000	31,560,000	Up 3.1
Apples (lbs.)	11,566,000	12,466,000	Up 7.8
Peaches (tons)	4,880	4,964	Up 1.7

Apples production accounts 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). The recently released Ag Census will provide us the information we need to keep the proper crop mix represented in 2015.

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

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 county budgets 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. Both yield and price received by producers in the state decreased using the five-year (2009-2013) average. The cost of production in the state remained constant. Therefore, there was a decrease in the irrigated land values across the state

Orchard Land

Yields for all fruit production in the state increased in 2014 with apples seeing the greatest increase. Average prices increased for all fruits with the exception of peaches. The average price increased for apples by almost 14 percent. Once again, apples and tart cherries are the two major fruit crops and their net returns tend to dominate those of the other fruits.

Meadow Land

Decreases were needed in the land values for meadow land in the state. Beef prices were lower and hay prices were also down, resulting in a decrease in meadow land values. These values are then compared to local grazing values.

Dry Land

The level of precipitation over a 5-year average, ending in 2013, varied depending on the portion of the state you were in as usual. Most areas were still below the average normal level of precipitation, where 100 is used to denote average precipitation over five years (see **Figure 2).** Iron and Millard Counties were the only counties that received above average precipitation. Numerous counties were below 80% of average precipitation.

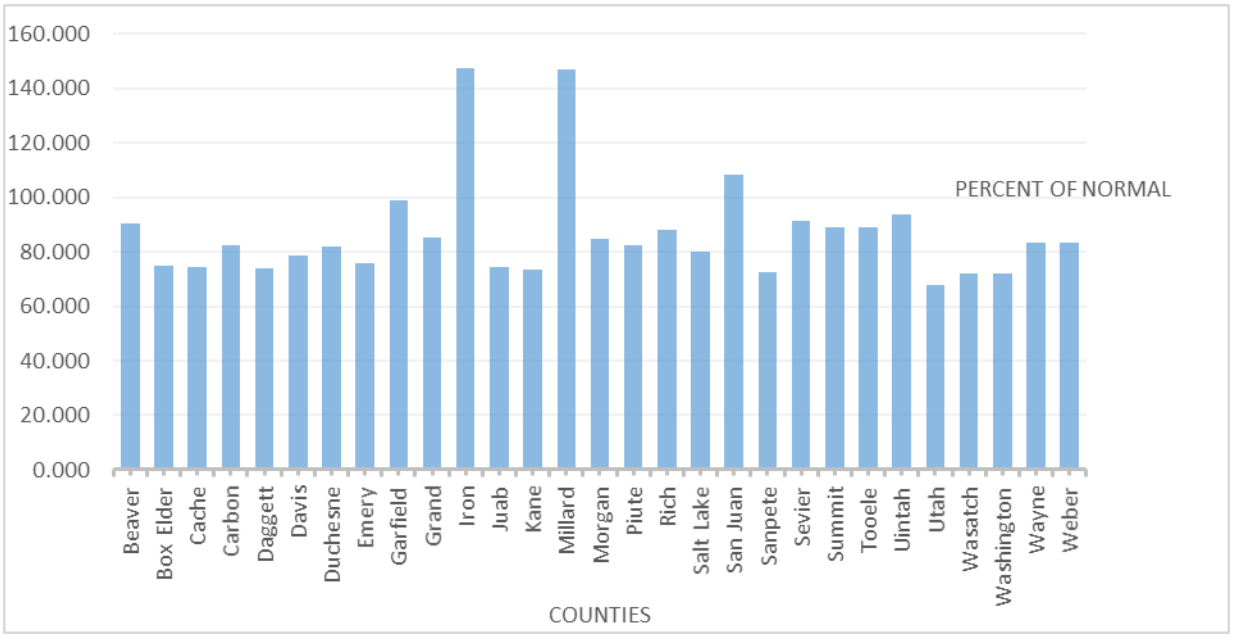

Figure 2. County Five-year Precipitation Average, 2008-2013.

The yields associated with dryland wheat, along with alfalfa, declined slightly between 2012 and 2013. **(Table 4)** (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 relative to the year you are dropping.) Prices for both dryland wheat and barley decreased from 2012 to 2013 using the five year average. Alfalfa prices decreased as well from 2012 to 2013.

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 6** summarizes five years of 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. Garfield is close to being average. The only counties receiving more than an average level over the last 5 years are Iron, Millard, and San Juan County. On average, Utah and Kane Counties have received the lowest precipitation over the last 5 years.

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 years or more time period. The most recent Ag Census data will be utilized in the 2015 report.

A consolidation of the proposed land values is included in **Table 9**. More detailed information in terms of what actual increases/decreases are proposed for 2014 recommendations is provided in **Appendix B**.

Table 9. 2014 Report Proposed Farmland Assessment Values.*

	Irrigated				Orchard				Meadow	Grazing Land				Dry Farm		Non-Prod
County/Class	I	II	III	IV	I	II	III	IV		I	II	III	IV	III	IV	
Beaver	0	0	546	449	603	603	603	603	231	69	22	16	6	50	15	5
Box Elder	798	701	552	456	653	653	653	653	255	75	23	17	5	93	59	5
Cache	674	576	437	339	603	603	603	603	259	70	23	15	5	116	81	5
Carbon	500	398	263	170	603	603	603	603	125	50	15	12	5	47	14	5
Daggett	0	0	0	185	0	0	0	0	153	51	14	11	5	0	0	5
Davis	835	734	590	494	658	658	658	658	263	60	19	12	5	50	16	5
Duchesne	0	468	328	230	603	603	603	603	160	67	22	13	5	52	19	5
Emery	479	385	242	151	603	603	603	603	133	69	21	14	6	0	0	5
Garfield	0	0	202	108	603	603	603	603	100	74	22	16	5	46	14	5
Grand	0	370	233	141	603	603	603	603	128	75	22	15	6	47	14	5
Iron	760	666	530	432	603	603	603	603	251	71	22	15	6	47	14	5
Juab	0	432	291	193	603	603	603	603	148	63	19	13	5	49	15	5
Kane	401	308	171	78	603	603	603	603	105	72	23	15	5	46	14	5
Millard	764	670	530	432	603	603	603	603	187	74	23	16	5	46	13	5
Morgan	0	0	371	274	603	603	603	603	189	64	21	13	6	61	28	5
Piute	0	0	319	223	603	603	603	603	183	87	25	18	6	0	0	5
Rich	0	0	170	79	0	0	0	0	100	63	20	13	5	46	14	5
Salt Lake	695	597	454	352	603	603	603	603	223	68	21	14	5	53	15	5
San Juan	0	0	178	81	603	603	603	603	0	77	25	16	5	54	17	5
Sanpete	0	515	377	283	603	603	603	603	186	61	18	13	5	52	19	5
Sevier	0	539	401	307	603	603	603	603	191	62	18	13	5	0	0	5
Summit	0	441	300	208	603	603	603	603	193	69	20	14	5	46	14	5
Tooele	0	434	290	198	603	603	603	603	180	68	20	13	5	50	14	5
Uintah	0	0	356	263	603	603	603	603	199	78	27	19	6	52	19	5
Utah	730	631	484	389	663	663	663	663	244	65	23	13	5	49	15	5
Wasatch	0	467	325	232	603	603	603	603	200	51	17	12	5	46	14	5
Washington	624	532	391	294	713	713	713	713	219	63	21	13	5	46	13	5
Wayne	0	0	315	222	603	603	603	603	165	85	27	18	5	0	0	5
Weber	769	675	537	438	658	658	658	658	288	67	20	14	6	75	43	5

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

Appendix A

2014 State Farmland Evaluation Advisory Committee
Applicable Statutes and Administrative Rule

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.

APPENDIX B: Values of Land in Alternative Uses

Irrigated Farm Land

Irrigated farmland decreased in value in all counties in 2014 as shown in **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, Classes I through IV, 2013-2014 Report Years.

	2013	2014	2013	2014	2013	2014	2013	2014
County	I	I	II	II	III	III	IV	IV
Beaver	0	0	0	0	574	546	472	449
Box Elder	820	798	720	701	567	552	468	456
Cache	707	674	603	576	458	437	355	339
Carbon	525	500	418	398	277	263	178	170
Daggett	0	0	0	0	0	0	195	185
Davis	870	835	764	734	615	590	514	494
Duchesne	0	0	490	468	344	328	241	230
Emery	504	479	406	385	255	242	159	151
Garfield	0	0	0	0	213	202	114	108
Grand	0	0	389	370	245	233	149	141
Iron	800	760	701	666	557	530	455	432
Juab	0	0	450	432	303	291	201	193
Kane	422	401	324	308	180	171	82	78
Millard	804	764	705	670	558	530	454	432
Morgan	0	0	0	0	391	371	290	274
Piute	0	0	0	0	336	319	235	223
Rich	0	0	0	0	179	170	83	79
Salt Lake	710	695	610	597	464	454	360	352
San Juan	0	0	0	0	181	178	83	81
Sanpete	0	0	542	515	397	377	298	283
Sevier	0	0	567	539	422	401	323	307
Summit	0	0	466	441	317	300	219	208
Tooele	0	0	456	434	305	290	208	198
Uintah	0	0	0	0	374	356	276	263
Utah	755	730	653	631	501	484	403	389
Wasatch	0	0	492	467	342	325	244	232
Washington	659	624	561	532	412	391	310	294
Wayne	0	0	0	0	332	315	235	222
Weber	808	769	709	675	564	537	460	438

The largest change for any land type was approximately -$40/acre for Iron County as shown in **Table B2**.

Table B2. Specific Changes in Irrigated Farmland Values, 2014 Report.

County	I	II	III	IV
Beaver	0	0	-29	-24
Box Elder	-21	-19	-15	-12
Cache	-33	-28	-21	-16
Carbon	-25	-20	-13	-9
Daggett	0	0	0	-10
Davis	-35	-31	-25	-21
Duchesne	0	-33	-23	-16
Emery	-26	-21	-13	-8
Garfield	0	0	-11	-6
Grand	0	-19	-12	-7
Iron	-40	-35	-28	-23
Juab	0	-18	-12	-8
Kane	-21	-16	-9	-4
Millard	-39	-35	-27	-22
Morgan	0	0	-20	-15
Piute	0	0	-17	-12
Rich	0	0	-9	-4
Salt Lake	-15	-13	-10	-8
San Juan	0	0	-3	-1
Sanpete	0	-27	-20	-15
Sevier	0	-28	-21	-16
Summit	0	-24	-16	-11
Tooele	0	-22	-15	-10
Uintah	0	0	-18	-13
Utah	-26	-22	-17	-14
Wasatch	0	-25	-17	-12
Washington	-34	-29	-21	-16
Wayne	0	0	-17	-12
Weber	-39	-34	-27	-22

*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 increased in all counties. Production of some fruits increased, such as pie cherries and apples, and cost increases were not able to overcome the increase in Apple production and price. The changes for orchard value for this report year are noted in **Table B3**.

Table B3. Suggested Changes in Orchard Land Values, 2013-2014 Report Years.

	2013	2014	2013	2014	2013	2014	2013	2014
County	I	I	II	II	III	III	IV	IV
Beaver	574	603	574	603	574	603	574	603
Box Elder	622	653	622	653	622	653	622	653
Cache	574	603	574	603	574	603	574	603
Carbon	574	603	574	603	574	603	574	603
Daggett	0	0	0	0	0	0	0	0
Davis	627	658	627	658	627	658	627	658
Duchesne	574	603	574	603	574	603	574	603
Emery	574	603	574	603	574	603	574	603
Garfield	574	603	574	603	574	603	574	603
Grand	574	603	574	603	574	603	574	603
Iron	574	603	574	603	574	603	574	603
Juab	574	603	574	603	574	603	574	603
Kane	574	603	574	603	574	603	574	603
Millard	574	603	574	603	574	603	574	603
Morgan	574	603	574	603	574	603	574	603
Piute	574	603	574	603	574	603	574	603
Rich	0	0	0	0	0	0	0	0
Salt Lake	574	603	574	603	574	603	574	603
San Juan	574	603	574	603	574	603	574	603
Sanpete	574	603	574	603	574	603	574	603
Sevier	574	603	574	603	574	603	574	603
Summit	574	603	574	603	574	603	574	603
Tooele	574	603	574	603	574	603	574	603
Uintah	574	603	574	603	574	603	574	603
Utah	631	663	631	663	631	663	631	663
Wasatch	574	603	574	603	574	603	574	603
Washington	679	713	679	713	679	713	679	713
Wayne	574	603	574	603	574	603	574	603
Weber	627	658	627	658	627	658	627	658

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

The largest increase in fruit value was $34/acre for Washington County as noted in **Table B4**.

Table B4. Specific Proposed Changes in Orchard Land Values, 2014 Report.

County	I	II	III	IV
Beaver	29	29	29	29
Box Elder	31	31	31	31
Cache	29	29	29	29
Carbon	29	29	29	29
Daggett	0	0	0	0
Davis	31	31	31	31
Duchesne	29	29	29	29
Emery	29	29	29	29
Garfield	29	29	29	29
Grand	29	29	29	29
Iron	29	29	29	29
Juab	29	29	29	29
Kane	29	29	29	29
Millard	29	29	29	29
Morgan	29	29	29	29
Piute	29	29	29	29
Rich	0	0	0	0
Salt Lake	29	29	29	29
San Juan	29	29	29	29
Sanpete	29	29	29	29
Sevier	29	29	29	29
Summit	29	29	29	29
Tooele	29	29	29	29
Uintah	29	29	29	29
Utah	32	32	32	32
Wasatch	29	29	29	29
Washington	34	34	34	34
Wayne	29	29	29	29
Weber	31	31	31	31

Meadow Land

Declines in meadow land values are shown for the 2014 report year in Table B5.

Table B5. Suggested Values in Meadow Land, 2013-2014 Report Years.

County	2013	2014
Beaver	243	231
Box Elder	262	255
Cache	271	259
Carbon	131	125
Daggett	161	153
Davis	274	263
Duchesne	168	160
Emery	140	133
Garfield	105	100
Grand	135	128
Iron	264	251
Juab	154	148
Kane	110	105
Millard	197	187
Morgan	199	189
Piute	193	183
Rich	106	100
Salt Lake	228	223
San Juan	0	0
Sanpete	196	186
Sevier	201	191
Summit	204	193
Tooele	189	180
Uintah	209	199
Utah	253	244
Wasatch	211	200
Washington	231	219
Wayne	174	165
Weber	303	288

*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 $15/acre in Weber County as given in **Table B6**.

Table B6. Proposed Changes in Meadow Land Values, 2014 Report.

County	Change
Beaver	-12
Box Elder	-7
Cache	-12
Carbon	-6
Daggett	-8
Davis	-11
Duchesne	-8
Emery	-7
Garfield	-5
Grand	-7
Iron	-13
Juab	-6
Kane	-6
Millard	-10
Morgan	-10
Piute	-10
Rich	-6
Salt Lake	-5
San Juan	0
Sanpete	-10
Sevier	-10
Summit	-11
Tooele	-9
Uintah	-10
Utah	-9
Wasatch	-11
Washington	-12
Wayne	-9
Weber	-15

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 decreased yields as shown in **Table B7**.

Table B7. Suggested Values for Dry Farm Land, 2013-2014 Report Years.

County	2013	2014	2013	2014
Class	III	III	IV	IV
Beaver	53	50	16	15
Box Elder	96	93	60	59
Cache	121	116	85	81
Carbon	50	47	15	14
Daggett	0	0	0	0
Davis	52	50	16	16
Duchesne	54	52	20	19
Emery	0	0	0	0
Garfield	49	46	15	14
Grand	50	47	15	14
Iron	50	47	15	14
Juab	51	49	16	15
Kane	49	46	15	14
Millard	48	46	14	13
Morgan	65	61	29	28
Piute	0	0	0	0
Rich	49	46	15	14
Salt Lake	54	53	16	15
San Juan	55	54	18	17
Sanpete	55	52	20	19
Sevier	0	0	0	0
Summit	49	46	15	14
Tooele	52	50	15	14
Uintah	55	52	20	19
Utah	51	49	16	15
Wasatch	49	46	15	14
Washington	49	46	14	13
Wayne	0	0	0	0
Weber	78	75	45	43

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

The largest change in dry farm land values was -$6/acre in Cache County

Table B8. Proposed Changes in Dry Farm Land Values, 2014 Report.

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

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 decreased during 2013, while production costs remained constant. While actual forage condition is dependent on precipitation, the value of grazing is also influence by the price of other forages. This has resulted in slight decreases in grazing land values as reported in **Table B9**.

Table B9. Suggested Grazing Land Values, 2013-2014 Report Years.

	2013	2014	2013	2014	2013	2014	2013	2014
County	I	I	II	II	III	III	IV	IV
Beaver	73	69	23	22	17	16	6	6
Box Elder	77	75	24	23	18	17	5	5
Cache	73	70	24	23	16	15	5	5
Carbon	52	50	16	15	13	12	5	5
Daggett	54	51	15	14	12	11	5	5
Davis	62	60	20	19	13	12	5	5
Duchesne	70	67	23	22	14	13	5	5
Emery	73	69	22	21	15	14	6	6
Garfield	78	74	24	22	17	16	5	5
Grand	79	75	23	22	16	15	6	6
Iron	75	71	23	22	16	15	6	6
Juab	66	63	20	19	14	13	5	5
Kane	76	72	25	23	16	15	5	5
Millard	78	74	25	23	17	16	5	5
Morgan	68	64	22	21	14	13	6	6
Piute	92	87	27	25	19	18	6	6
Rich	66	63	21	20	14	13	5	5
Salt Lake	70	68	22	21	15	14	5	5
San Juan	78	77	26	25	17	16	5	5
Sanpete	64	61	19	18	14	13	5	5
Sevier	65	62	19	18	14	13	5	5
Summit	73	69	21	20	15	14	5	5
Tooele	72	68	21	20	14	13	5	5
Uintah	82	78	29	27	20	19	6	6
Utah	67	65	24	23	14	13	5	5
Wasatch	53	51	18	17	13	12	5	5
Washington	66	63	22	21	14	13	5	5
Wayne	90	85	29	27	19	18	5	5
Weber	70	67	21	20	15	14	6	6

Table B 10. Specific Changes in Grazing Land Value, 2014 Report.

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

Non-Production Land

No changes are proposed for non-production land for the 2014 report year as shown in **Table B11**.

Table B11. Suggested Changes in Non-Production Land, 2013-2014 Report Years.

County	2013	2014
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