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Size and Scope of Cache County Agriculture 2018

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Location

Located in northern Utah, Cache County is bordered by the state of Idaho on the north and Box Elder, Weber and Rich counties. The central part of the county is where the majority of the population is located, and the bulk of the irrigated farmland lies in the north/northwest. The eastern part of the county is characterized by public land and forested areas.

Cache County covers 745,600 acres or 1,165 square miles of land. Cache County has a fluctuating population due to Utah State University calling Cache County its home. Population for the county totaled 124,438 as of July 1, 2017, estimates. Major population centers are primarily congregated around the Logan, Hyde Park, Smithfield, and Providence areas.

Land Ownership

The majority of Cache County land is under private ownership (58%), then federal government (37%), and the state owning the least amount of land (4%). About 81% of the federally owned land is under the jurisdiction of the United States Forest Service (USFS). The state-controlled land is under the jurisdiction of the Utah School and Institutional Trust Land Administration (SITLA). Private ground

is primarily made up of farmland, rangeland and residential areas.

Land in Farms (acres)	276,273
Number of Farms	1,397
Average Farm Size (acres)	198
Median Farm Size (acres)	30
Area in Cropland (acres)*	159,356
Harvested Cropland (acres)	116,490
Irrigated Land (acres)	90,148

Source: USDA-NASS 2017 Census of Agriculture

In 2017 the Utah Department of Agriculture and Food (UDAF) estimated there were 1,217 farms with an average size of 221 acres and an average value of \$917 per acre. The county had 137,209 acres in cropland. Cropland is defined as land that currently has crops growing on it plus land that historically has been cropped. In 2016 irrigated cash-rent prices were \$96.60 per acre, with non-irrigated cash-rent prices at \$40.00 per acre, and pastureland valued at \$13.50 per acre. The total value of livestock and crops produced in Cache County in 2016 was listed at \$158,409,000.

Table 2. Cache County Annual Precipitation and Average Frost-Free Days.

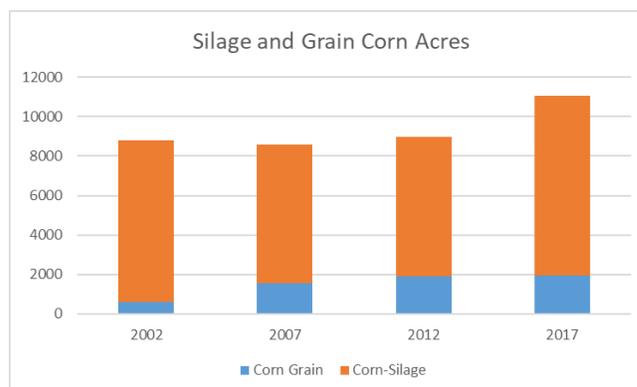
Location	Annual Precipitation	Last Average Spring Freeze	First Average Fall Freeze	Average Freeze-Free Period
Logan USU Campus	17.82 inches	May 6	Oct 11	159.1 days
Logan KVNU Radio	16.26 inches	May 15	Sept 27	136 days
Richmond	19.35 inches	May 21	Sept 25	128.1 days
Wellsville	18.04 inches	May 20	Sept 22	126 days

Growing Season

The growing season in Cache County lasts for approximately 128 days in the northern part of the valley, toward the Idaho border, with not much variation on the south/southwest side of the valley, and close to the 160 days on the Bear River Mountain benches. Richmond is located in the northern part of the valley. Logan is located in the center part of the valley and extends to the mountain range on the east and almost to the Wellsville Mountain Range on the west. Table 2 shows the annual precipitation, last spring frost, first fall frost and average frost-free days in selected parts of the county. There tends to be a significant difference in the length of the growing season within the county. The dryer and colder areas in the county, as well as precipitation, influence the yield potential and limit the number and types of crops raised in these areas. The Richmond USU Weather Station reports rainfall at 19.35 inches per year. The community of Wellsville has precipitation at 18.02 inches per year. Utah State University rainfall, located in the center of Logan on the east, reports rainfall at 17.82 inches. The Logan KVNU Radio Station in West Logan reports at 16.26 inches per year.

Crop Production

Cache County has a good amount of farm representation in the state. A majority of the crops are grown in the northern part of the county, which consists largely of flood and pivot irrigated farmland. These crops include winter and spring wheat, barley, and safflower. The crop grown in largest quantities is alfalfa. Cache County is ranked number one in the state for barley production. On non-irrigated or dryland ground, a couple of crop rotation methods are practiced. A crop, fallow, crop, fallow, rotation is one of the methods



Source: USDA-NASS 2017 Census of Agriculture

Figure 1. Cache County Corn Production.

practiced. With this rotation, winter wheat is planted in the fall of the year with a deep furrow grain drill and harvested the following summer. The ground is fallowed (not planted to a crop) the following summer to help control weeds and to conserve winter and spring precipitation in the soil for the next wheat crop. It is also becoming more practical to follow a wheat, safflower, fallow, wheat, safflower, fallow rotation to harvest four crops in 6 years. This rotation allows growers to control jointed goatgrass and other problem weeds in a safflower crop. Direct seeding and reduced tillage on non-irrigated or dryland are becoming more common. Much of the dryland grain grown in the county is hard red winter wheat (HRW).

The typical alfalfa hay producer will leave an alfalfa stand into production for 4 to 5 years before rotating to another crop. Producers in the eastern part of the county harvest three or four crops of alfalfa annually while the producers in western part, harvest one, two or three crops depending on available water and frost-free growing season. Most irrigated ground is planted to soft white wheat (SWW) or spring wheat using double disc

Table 3. Major Crops, Production Harvested Acres and Average Yield.

Primary Crops	2017	2002	% Change
Alfalfa & Hay (tons)	275,682	244,108	13%
Acres	73,833	67,528	
Yield	3.7	3.6	
Corn for Grain (bushels)	340,987	95,625	257%
Acres	1,935	603	
Yield	176	159	
Corn for Silage (tons)	221,068	181,095	22%
Acres	9,126	8,205	
Yield	24	22	
Spring Wheat (bushels)	163,102	82,692	97%
Acres	2,982	1,906	
Yield	55	43	
Winter Wheat (bushels)	891,109	504,824	77%
Acres	15,887	10,734	
Yield	56	47	
Barley (bushels)	576,126	663,584	-13%
Acres	8,033	13,024	
Yield	72	51	
Oats (bushels)	11,220	40,106	-72%
Acres	128	568	
Yield	88	71	

Source: USDA-NASS 2017 Census of Agriculture

drill systems. About 94 percent of wheat planted is winter wheat and 6 percent is spring wheat. Irrigated land consists mostly of soft white wheat, silage and grain corn, alfalfa, and barley.

Irrigation Water

Approximately 50% of the irrigation water for Cache County comes from the Bear and Logan Rivers. An additional 19% is delivered through the Cub River, almost 10% from the Little Bear River and Hyrum Reservoir, 7% from Black Smith Fork River, 5% from High Creek, 4% from Newton Reservoir, and roughly 2% from Spring Creek. Deep artesian wells provide the balance.

Livestock Production

Beef and dairy cattle, and sheep production make up the majority of the county's receipts for animal agriculture production.

Table 4. Major Livestock Commodities.

Primary Livestock	2016	2017	Change
All Cattle & Calves	57,000	55,000	-2,000
Beef Cows	9,200	9,500	300
Milk Cows	16,100	16,400	300
All Sheep & Lambs	1,400	1,400	0

Source: USDA-NASS 2017 Census of Agriculture

Beef cattle ranching and dairy are the most common forms of livestock production in the county and are done countywide. Many of the larger commercial dairy farms are located in the northern part of the county. Nearly all ranches and dairies rely on public and private grazing lands. Ranchers typically utilize this combination as well as forage hay throughout the year. In the winter months, they keep livestock on private and public lands as long as the winter and/or permits allow and then supplement with forage such as alfalfa and grass hay. During summer months, livestock are typically kept on a combination of public and private lands.

The typical average weight of beef cows is 1,025 lbs. Breeding season for cows usually lasts 85 days (May 7 to July 31) with 40 percent of calves typically born in the first 20 days of the calving season, 70 percent within the first 40 days and 87 percent born within 60 days.

Calves are mostly weaned in the fall as cows and calves come off summer ranges. The average weaned calf weight for heifers and steers is around 500 to 550 lbs.

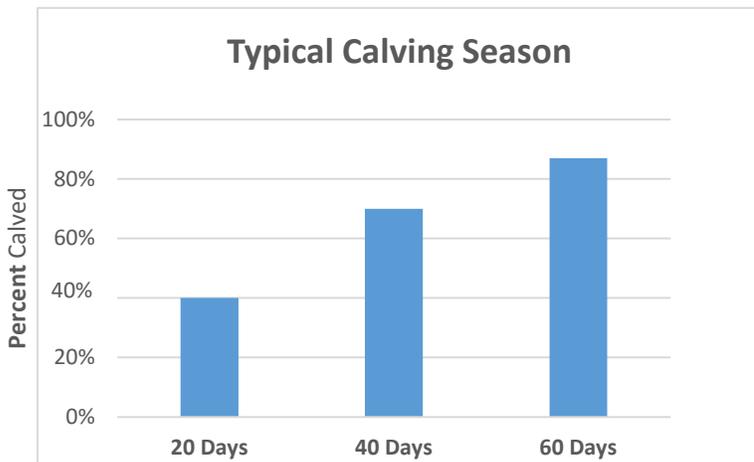


Figure 2. Cache County Calving.

Disease and Health Concerns

Ranchers are concerned about many health and disease problems such as calf scours, respiratory diseases, blackleg, parasites and mineral deficiencies. They usually utilize and consult veterinarians for general herd health, individual animal health, consultation and nutrition. Most ranchers have increased their use of preventative

vaccinations. Predation, mostly coyote and mountain lion, is on the rise. Ranchers have implemented the use of multiple species of guard animals (dogs, llamas, donkeys) to assist in the control and prevention of predators. USU Extension is currently assisting with research on the implantation of alpacas as another preventative guard animal.

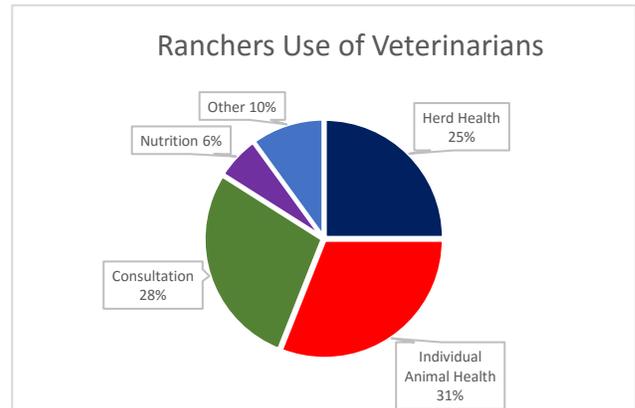
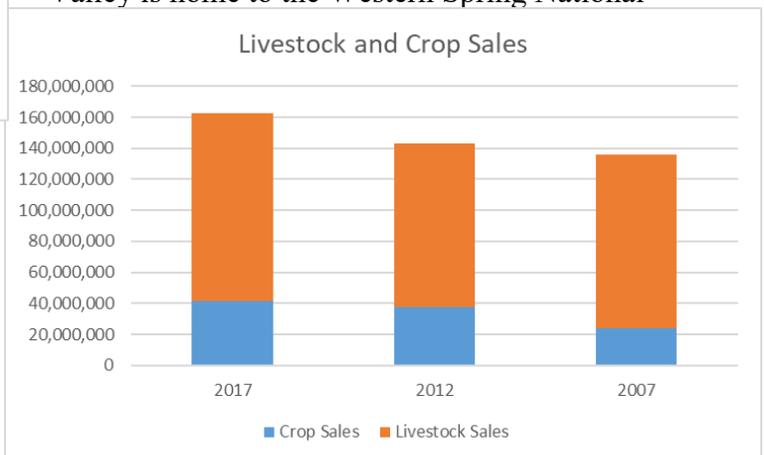


Figure 3. Ranchers Use of Veterinarians.

Marketing

Marketing is an important part of the ranching business, but the way ranchers market their livestock has changed over time. Ranchers increasingly utilize video auctions in addition to more traditional marketing techniques such as order buyers and local livestock auctions; however, the use of local cattle auctions has decreased over time and is almost parallel to the use of video auctions. The dairy industry has been one of great influence on the local economy for Cache Valley. Cache Valley is home to the Western Spring National



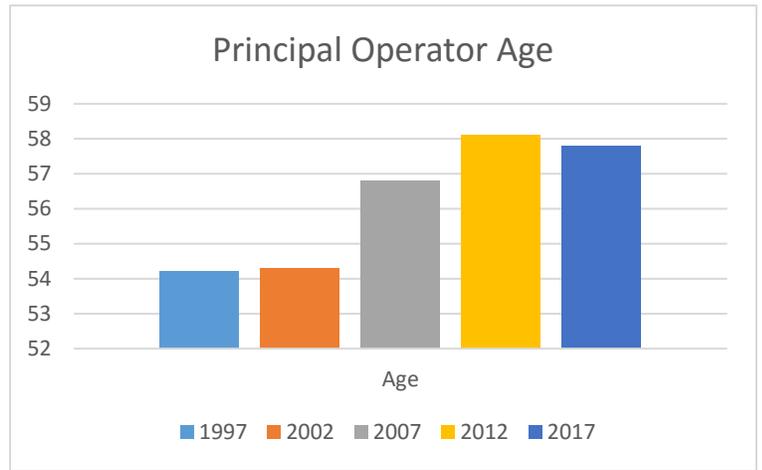
Source: USDA-NASS 2017 Census of Agriculture

Figure 4. Livestock and Crop Sales.

Dairy Show, one of the national shows in the United States. It is also home to various post-production dairy industries such as Gossner's and Schreiber Foods.

Farm Income and Age of Operator

Farm income has been positive for Cache Valley. Because of the counties diverse agriculture, that particular industry makes up a considerable part of the local economy. 2017 cash receipts from crops equaled \$41,413, 000 and cash receipts from livestock totaled \$121,324,000. Total 2017 cash receipts totaled 162,737,000. The age of the primary farmer or rancher was 57.8 in 2017. This is a slight decrease from 2012 but still an increase from 2007.



Source: USDA-NASS 2017 Census of Agriculture

Figure 5. Principal Operator Age in Cache County.

Sources

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