

Mormon Battalion Foods List

Compiled by Kevin Henson

Background Comments:

People often ask, “What did members of the Mormon Battalion eat during their trek west?”

The answer is very simple; “Whatever they could find.”

True, the United States Army did promise to provide some very basic food rations to the enlisted men; flour, hard bread, fresh beef and salt pork, sugar, coffee, beans, rice and a few other items. Officers had the latitude to bring along some extra items for themselves. From a 1949 paper presented at the US Army Quartermaster’s College, we have one version of an official ration list effective in 1846:

Mexican War ration

http://www.qmfound.com/history_of_rations.htm

The Mexican War ration was established in 1838. It shows the change mentioned previously, that of substituting coffee and sugar for rum. Compared with the ration provided the soldier in 1812, this ration shows considerable improvement. The caloric value had been increased, and it provided a better supply of vitamins. Vitamins A and C are noticeably lacking in this ration as they were in the other rations. The components of the ration included the following:

16 oz beef (or pork)	6.8 oz peas	0.1830 oz soap
18 oz flour (or hard tack)	1.4 oz rice	0.0686 oz candle
16 oz milk	1 qt spruce beer	

Men were expected to supplement their rations with anything else they could lay their hands on. “Foraging” for food has been a necessity for armies on the move in all time periods. “Living off the land” was standard practice for every army. Col Kearny’s “South Pass Expedition” of 1845 did it. Belts got tight and stomachs growled even amongst the experienced and trail-worn “regular Army.” The Mormon Battalion’s experience with short rations was no different than any other frontier unit in the service.

Read almost any journal kept by any military group on any extended frontier march and you will find that rations had been cut to half portions or less. With no grocery store and without the confidence they would soon find food, commanding officers would **prudently** reduce rations early in a campaign and send men out to hunt and forage. It was the smart thing to do – especially in the desert.

Let us address claims made by some Battalion journalists of poor commissary management by the military quartermasters – that they started from Santa Fe without sufficient food – that they could and should have procured more. General Kearny, in appointing P. St. George Cooke as Battalion commander specified; “Fit them out with 60 days provisions – not to encumber your selves with baggage as a part of the route will be difficult for the passage of waggon & follow on my trail...” (Lee John D.; Mormon Battalion Diary; New Mexico Historical Review, October 1967, p 302). Col. Cooke followed his orders.

Mormon Battalion Foods List

What about the military units that remained in Santa Fe during the winter of 1846-47? Their journals reveal that they too were on reduced rations. When you nearly double the population of a city in a short time, the food situation is going to be very tight. The logistics of providing food for thousands of men, forage for the animals and equipment needed to carry out assigned tasks is something few of us will ever appreciate the difficulty of organizing. What private in the Army has EVER understood the difficulties their commanding officers operated under? Most of the Mormon complaints are of that sort. They had no idea how tight the food situation really was. Ignore their whining. It's what enlisted men do to pass the time of day.

The Food List:

To be included on this list, a food or item had to be referenced by someone in the Mormon Battalion – either officer or enlisted man or by someone travelling with them (John D. Lee for instance). This list covers just the enlistment year – 16 July 1846 to 16 July 1847 – plus what the Kearny escort mentioned eating before reaching Fort Leavenworth 23 August 1847. The list closes on that date. Original spelling has been maintained in the journal quotes.

This list does not detail EACH mention of a particular food. For foods mentioned frequently, we have favored relating the early or more interesting references. Items are generally arranged based upon the US-FDA defined food groups with modifications. Our list contains:

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|------------------------------------|-----------------------------|
| 1. Rations (1838 Army ration list) | 7. Confections (sweets) |
| 2. Grains, Beans & Legumes | 8. Beverages |
| 3. Meats & Nuts (proteins) | 9. Spices |
| 4. Vegetables & related foods | 10. Medical items mentioned |
| 5. Fruits | 11. Logistics |
| 6. Dairy & dairy products | 12. Other Items |

Recipes are not included though we do note general comments of how a food item was used or prepared (boiled, fried, baked, etc.). Authentic recipes are something we seek. How would they really have cooked these foods? The kinds of pans, kettles, skillets and ovens they used and their fuels also influenced what they could cook and how. Buffalo chips actually work pretty well as a fuel. Use this list to try your hand at "campaign cooking." If you want a Battalion experience, try eating what they ate, sleeping as they slept, hiking as they hiked. Try it sometime. Well – try most of the list, but skip the calomel and arsenic.

The fact that many Battalion men drank coffee, tea and alcoholic beverages should not shake any Mormon's testimony. The LDS "Word of Wisdom" (D&C 89) was not a major issue in 1846. Drunkenness was certainly frowned upon, but having a beer or wine was still acceptable and did not say anything about a man's religious commitment. Be not troubled by things these young men did when the LDS church was only 17 years old. They were still 'growing up.' It isn't fair to judge 1846 behaviors by 21st Century standards.

Special thanks to Randy Madsen who helped spot omissions and suggested corrections. If you find other omissions, have comments or suggestions, please contact me.

Kind regards and happy Battalion eating.

Mormon Battalion Foods List

Foods List – one page version

Pages which follow give more details, source quotes and additional information

Grains, Beans & Legumes

Beans, dry (unknown variety)
Beans, "English" (possible)
Bread, "cake"
Bread, "Johnny cake"
Bread (form not specified)
Bread, Tortillas as "cake"
Breads, "hard" bread
Breads, "light" bread
Breads, ashcakes
Breads, dough on a stick
Breads, Mesquite
Breads, Pancakes
Breads, salt rising
Breads, Tortillas
Breads, Tortillas as "pancakes/flapjacks"
Corn (unspecified)
Corn, boiled
Corn, grain
Corn, green
Corn, ground meal
Corn, hominy
Corn, parched
Corn, roasted
Flour, gravy
Flour, wheat
Hops, wild
Mesquite, mush ("puding")
Mesquite, raw & roasted
Oats, wild
Peanuts
Peas
Rice, unspecified
Wheat, boiled
Wheat, cakes
Wheat, grain
Wheat, ground
Wheat, parched

Spices

Ginger, ground
Herbs, "bitter"
Lemon, extract
Molasses, cane and Saguaro
Pepper, black
Pepper, cayenne
Peppers, red
Saleratus (baking soda)
Salt
Vinegar

Not included on this page

Medical, Logistics, Other (see pages 23-25)

Meats & Nuts (proteins)

Acorns
Antelope
Bacon (? Salt pork)
Bear
Beef, "melt" [sic – "milt"] or spleen
Beef, dried, smoked, or jerked
Beef, entrails
Beef, fresh
Beef, hide
Beef, soup
Bird, Chicken
Bird, Crow or Raven
Bird, Duck
Bird, Geese, wild
Bird, Pelican (probable)
Bird, Turkey
Bird, Turkey Buzzard
Buffalo, fresh
Buffalo, pot pie
Clams
Deer (venison)
Eggs, chicken
Eggs, duck
Fish, dried
Fish, fresh water
Fish, salt water
Goat
Horse, raw
Leather/rawhide, chewed or as soup
Mule
Mussels
Nuts, pine
Oxen (beef)
Oysters
Pork, fresh
Pork, salt ("pickled")
Rabbit
Sardines
Sheep, "lights" (lungs)
Sheep & lambs
Snake, roasted (rattlesnake?)

Beverages

Alcoholic, Brandy
Alcoholic, Mescal
Alcoholic, Whiskey (unknown grains)
Alcoholic, Wine
Chocolate, hot – American style
Chocolate, hot – Mexican 'Champurrado'
Coffee
Tea, ginger
Water

Vegetables

Agave, raw & baked
"Bread root"
Cabbage
Mescal leaves, baked
Mustards, boiled
Onions
Parsley, boiled
Potatoes
Pumpkin
Pumpkin, "sauce"
Pumpkin, dried
Pumpkin, stewed
Squash
Watermelon

Fruits

Apples
Apricots
Cactus, Saguaro "molasses"
Cherries
Coconut
Currants
Dates
Figs
Grapes, red
Grapes, "raisin kind"
Melons
Olive trees
Orange
Peaches
Pears, dried
Pears, fresh
Plums
Pomegranates
Quince
Rasins
Tomato

Dairy & dairy products

Butter
Cheese, goat
Ice cream
Milk, cow
Milk, goat

Confections

Honey
Penoche or Penuche (Anglo);
Cajeta (Spanish)
Pies
Sugar

Early Army Rations

Courtesy of US Army Quartermaster Foundation

<http://www.qmfound.com/>

The problem of feeding an armed force engaged in combat, whether in alien or in home areas, has occupied the attention of military leaders since the beginning of organized warfare. Leaders learned that the ability of men to fight was related to the way they were fed and that the answer to the feeding problem often determined victory or defeat. The axiom that an army travels on its stomach is as good today as it has ever been, only now that classical stomach rides in airplanes, ships, tanks, submarines, and jeeps in every terrain and climate of the world. But there is no question that the problems of the army stomach have entered the age of specialization. This fact is increasingly evident as the story of army subsistence unfolds from the early simplicity to the contemporary complexity of the military feeding program.

The earliest rations of the United States Army were all-inclusive in purpose. For more than a century after 1776, the basis of all troop feeding – for soldiers in camp, on the march, in action, or just surviving – was the simple fare of meat and bread, and sometimes vegetables, known as the garrison ration. From the Revolutionary War to World War I, the garrison ration served the unit, the small group, and the individual. Moreover, it was intended to serve them in organized messes, in isolated groups, and in individual situations of combat and survival.

In the Revolutionary War, this all-purpose ration established by resolution of Congress, included beef, pork, or salt fish; bread or flour; peas or beans (or "vegetable equivalent"); milk; rice or Indian meal; and spruce beer or cider. Candles and soap also were authorized "essentials."¹ Ordinarily, preparation of the food was up to the soldier. To provide fresh meat, cattle and hogs were driven to camp at "proper seasons" for slaughter and curing. Depending on the availability of supplies, other occasional variations were provided from time to time. One of the most welcome was "spirits"²

Immediately after the Revolutionary War, the issue of meat was reduced and fresh foods virtually disappeared from the ration. The changes were not without their effect on the health of the soldier nor was this result to go unnoticed. Dr. Benjamin Rush, Army Surgeon in 1777-78, and others, complained of the lack of fresh vegetables and pointed out that more soldiers died from

¹ Raphael P. Thian, *Legislative History of the General Staff of the Army of the United States* (GPO, 1901), p 241.

² Thian (pp 285-310) noted that in 1778, one gill of whiskey or spirits was included in the ration fixed by General Washington. In 1789, this issue was apparently too good to be true, at least for the "GI," for, because of "irregularities" in issue, individual status determined who was to get whiskey and how much. Allowances ranged from a half-gallon a week for a colonel to a pint-and-a-half for a subaltern; for the ordinary soldier, the issue of rum was limited to rainy weather and fatigue duty and then at the rate of only a gill per man.

Mormon Battalion Foods List

sickness than were killed by the sword.³ There was, however, little that could be done to increase the supply of fresh foods. Food preservation and transportation facilities were primitive and undeveloped and decades were to pass before these factors helped improve military subsistence.

Some attempt was made after the Revolution to increase the fare of the soldier serving on the frontier. In recognition of the severity of frontier life, Congress, in 1796, authorized the issue of additional amounts of flour or bread, beef, pork, and salt as supplementary items to the regular garrison ration.⁴ Coffee appeared in the ration in October 1832, when President Andrew Jackson substituted coffee and sugar for rum and brandy. This Presidential substitution was recognized by Congress in the Act of July 5, 1838, which declared "that the allowance of sugar and coffee to the noncommissioned officers, musicians, and privates, in lieu [of whiskey], shall be fixed at six pounds of coffee and twelve pounds of sugar to every one hundred rations, to be issued weekly when it can be done with convenience of the public service, and, when not so issued, to be provided for in money."⁵

³ Herbert R. Rifkind, *Fresh Foods for the Armed Forces-The Quartermaster Market Center System, 1941-1948* (QMC Historical Studies No.20, Washington, D. C., 1951), pp 1-2. In tracing the decrease in the ration after the Revolution, Rifkind cited John W. Barriger, *Legislative History of the Subsistence Department of the United States Army* (2d ed, Washington, D. C., 1877) and Elliott Cassidy, *The Development of Meat, Dairy, Poultry and Fish Products for the Army* (QMC Historical Studies No. 7, Washington, D. C., 1944), and others as sources of information.

⁴ As noted by Thian (p 330) the Act of May 30, 1796, provided "that every noncommissioned officer, private, and musician shall receive the following rations of provisions, to wit: One pound of beef or three-quarters of a pound of pork, one pound of bread or flour, half a gill of rum, brandy, or whiskey; and . . . one quart of salt, two quarts of vinegar, two pounds of soap, and one pound of candles to every hundred rations."

⁵ Barriger, *Leg Hist*, pp 90-91. (2) For a more extended discussion of the introduction and early use of coffee in the Army ration, see Franz A. Koehler, *Coffee for the Armed Forces: Military Development and Conversion to Industry Supply* (QMC Historical Studies, Series II, No. 5, Washington, D. C., 1958), pp 1-11.

Mormon Battalion Foods List

ARMY RATIONS (1 of 1)	Notes
Beef - 16 to 20 oz/day	Stock animals were kept at forts. Butchers slaughtered the animals and divided the meat into approximate ration weights. For moving commands on expeditions, beeves were sometimes driven along. Hunting buffalo and other game on the plains was depended upon to provide the meat ration. Salted pork might be resorted to or fresh sheep might be substituted.
Flour - 18 oz/day	The flour ration could include "hard bread" (aka "hard tack") which was easier to transport. When obtaining freshly ground wheat, the men often stated they received "unbolted" flour which had not been sifted and can be thought of as either "Whole Wheat" or "Graham" flour. "Graham" flour is so named in remembrance of Sylvester Graham (b. 1794 – d. 1851), an American pastor who promoted vegetarianism and natural wheat foods (see Wiki article). Lt Willis confirmed the ration at 18 oz/day (See Tyler, Chapter 15).
Beans, dry - 2.4 oz/day	Source (2) details "Peas - 6.8 oz/day" or "Rice - 1.4 oz/day"
Coffee, green 0.96 oz/day	Note that the beans were green and had to be roasted and ground before brewing into a drink. Thus, a coffee mill was standard equipment.
Salt - 0.64 oz/day	
Sugar - 1.92 oz/day	
Vinegar - 0.16 gill/day	The daily vinegar ration was equal to 4 teaspoons. For non-drinking folks, "gill" is pronounced "Jill." It's a liquid measure usually associated with alcoholic drinks - kind of like a "shot" of whiskey. In volume, a gill is equivalent to a 1/2 cup or 4 fluid ounces.
Soap - 0.183 oz/day	This would be a cake of lye soap. No details at present
Candles 0.0686 oz/day	No information at present

NOTE: The following two items are included in Source 2, however, they were likely available primarily to garrisoned commands at forts.

Milk - 16 oz/day	Not practical for a moving camp Army. Important ingredient for making bread.
"Spruce Beer" 1 qt/day	The Battalion never mentioned receiving any "Spruce beer" or expressed an expectation of such. "Spruce beer" is a beverage flavored using the buds, needles or essence of spruce trees. Spruce beer may be either alcoholic or non-alcoholic. The North American Indians used the drink to prevent scurvy during winter months. European sailors adopted the practice in the 1700's and it spread across the world. In colonial United States, an alcoholic recipe was widely used. A non-alcoholic Canadian recipe from 1757 states; <i>"It is made of the tops and branches of the spruces-tree, boilded for three hours, then strained into casks, with a certain quantity of molasses, and, as soon as cold, it is fit for use..."</i> ; Adapted from the Wiki article "Spruce beer"

Sources: (1) "Feeding our Soldiers" as found at: http://www.qmfound.com/feeding_our_soldiers.htm
 (2) "History of Rations" as found at: http://www.qmfound.com/history_of_rations.htm

Mormon Battalion Foods List

Grains, Beans & Legumes		1 of 4	
Food	Journal	Date	Location; Quote, Notes and details
Beans, dry (unknown varieties)	SMITH, Albert	Aug 18	"Hurricane Point" - Blue Mound (KS); "I had to deal out [rations] to 19 messes ... then once a week we done beans salt candles soap vinegar and rice for the sick"
	PACE, William	Dec 16	Tucson (AZ); "The people were friendly and contributed much by way of beans, corn and fruit ... seized some Government wheat, Beans, Etc..."
	HOLMES, Jonathan	Dec 25	Christmas camp, SE of Phoenix, AZ; "Had cold beans..."
	HOLMES	Feb 20	San Luis Rey (CA); "Drawd beans and flour on the 20[th]for 5 days."
	BLISS, James	Feb 12 1847	San Luis Rey; "...English beans, Pease, Cabbage Plants &c &c 3 or 4 inches high that have come up by themselves" NOTE: Likely either "Navy beans", "haricort" or "small white beans." It is unclear if these grew large enough to harvest while at San Luis Rey. "English Beans" in America are known as "baked beans." See the article at: http://www.thetiffinbox.ca/2010/05/english-baked-beans-heinz-style.html The British love "beans on toast." See Wiki article at: http://en.wikipedia.org/wiki/Baked_beans .
Breads, "light" bread	SMITH, Azariah	Nov 28	Animas Defile (NM); "In the evening we baked light bread." NOTE: Light breads are leavened breads and have to "rise" before baking. For light breads while on the march, we have the following from " Customs of service for non-commissioned officers " p 258 (para 677–678) – " <i>A ferment is always necessary to make light palatable bread of flour. A stock of ferment may be kept constantly on hand by retaining a piece of dough from one baking to another; and it is best transported by packing it in the flour.</i> "
	STANDAGE, Henry	May 01, 1847	Los Angeles (CA); "I was detailed to assist in the bakehouse, as Government intended to issue bread instead of flour to the men. Work'd in the bakehouse in the afternoon." NOTE: A military bakehouse was a bakery used in common by all military units in town at the time. Each unit contributed a baker or two.
Breads, ashcakes	WILLIAMS, James V.	July 16	Trader's Point (IA); "sometimes [we] flatten out a piece of dough and put it in a heap of hot ashes and cook it that way." (See "Bread - Salt rising" below)
Breads, dough on a stick	WILLIAMS	July 16	Trader's Point; "In baking our bread we would wrap the dough around our walking sticks and hold it before the fire and bake it in this way"
Breads, "hard" bread	SANDERSON, Dr. George B.	Aug 24	Stranger Creek (KS); "...[supper] consisted of hard bread, broiled bacon and water." NOTE: While none of the Battalion specifically mention using "hard bread" or "hard tack", it was an integral part of the Army rations. It does show on some of the Battalion's Quartermaster forms as "h bread" - see Ricketts, p 39. The fact that Sanderson used it weighs heavily in favor of it being used.
Breads, Mesquite	HANCOCK, Levi Ward	Dec 16	Tucson; "I have just received some bread made from the seeds of trees Called Muskeet – Bread they call pun [pan]"
	SANDERSON, Dr.	Dec 22	Pima Villages (AZ); "These people also collect the seed from the Muskete, beat it and make it into bread."
	KESOR, Guy	Jan 09, 1847	Yuma (AZ); "...plenty of muskeet which we gather & grind it in our coffee mills – it is rather course [coarse] but it is better than no bread" NOTE: See website at: http://www.az-cactus.com/

Mormon Battalion Foods List

<u>Grains, Beans & Legumes</u>		2 of 4	
Food	Journal	Date	Location; Quote, Notes and details
Breads, salt rising	ROGERS, Samuel	Nov 22	Soldier's Farewell (NM) – "The two last bakings of bread has been salt rising." From "Customs of service for non-commissioned officers" p 258 (para 678) – "the simplest and best method is to make self-rising flour, ... It requires only the addition of salt and sufficient water to make a dough, and can be baked in the ashes... It is equally good for pancakes or fritters. These last may be made much more digestible by the addition of boiled rice." (See "Bread - Ashcakes" above)
Breads, Tortillas	SANDERSON, Dr.	Dec 16	Tucson; "The Indians and some few Mexicans came to our camp with some few things for sale Flour Tortillas Bread Eggs &c"
	BLACKBURN, Abner	Dec 22	Near Taos (NM); "There was a woman putting some thin batter on a hot slab of rock on a slant of about twenty degrees. The batter would run off the lower end of the vessel. She had a hot fire under slab. She would pour the batter on with a dipper. After the batter had run off there was left a seal as thin as paper. This layer was taken off and another poured on; after she worked a half hour she had a roll one half inch thick. Then she rolled it up and cut it into strips to suit her. I do not know what the batter was made of. It looked like goat milk, flour or any good thing that was handy." NOTE: these do not seem to be your typical tortillas but we have not determined what they would have been called.
Breads, Tortillas as "pancakes, flapjacks"	WILLIAMS	Dec 21	Pima Villages; "...purchased some pancakes called by them Tortillas ..."
	HOLMES	Dec 25	"Christmas camp" (AZ); "Eat our Christmas supper by the roadside. Had cold beans, pancakes & pumpkin sauce." NOTE: probably tortillas
	TYLER, Dan	Jan 21, 1847	Warners Ranch, CA; "A few pancakes were purchased from the Indians, but no other bread could be obtained." (Tyler, p 249) NOTE: probably tortillas
Bread, Tortillas as "cake"	SCOTT, James	Oct 08	Las Vegas (NM); "... live mostly on cheese, milk & cakes." NOTE: probably tortillas
Bread, "cake"	BORROWMAN	Jan 01, 1847	Dateland (AZ); "This morning I had for my new years breakfast a piece of cake made of the flour of a little corn and wheat I grownd [ground] in our coffee mill ... In the evening I baked me a cake and put my ration of sugar which made me an excellent supper altho not a very full one."
	HANCOCK	Jan 20, 1847	Box Canyon (CA); "Brother Clark ... brought me some flower about one pound I had a cake made of it"
Bread, "Johnny cake"	WILLIAMS	Jan 26, 1847	Temecula; "there is not as much solid nutriment in five pounds of fresh beef as there is in one pound of good Johnny cake."
Bread, form not specified	SHUPE, Andrew J.	Oct 04	Mora River (Watrous, NM); "...the Spaniards ... brought milk and bread and cheese..." NOTE: probably tortillas
	LEE	Oct 10	Santa Fe; "Around the walks in all public places are found ... bread..." NOTE: probably tortillas
Corn, boiled	LEE	Oct 10	Santa Fe; "Around the walks in all public palces are found ... boiled corn..." NOTE: this could be a corn-meal mush instead of boiled "ear" corn.
	KEYSOR	Jan 22, 1847	Warner's Ranch; "I see the Indians having a basket of corn setting in the [hot] spr[ing] which they said was cooking."

Mormon Battalion Foods List

Grains, Beans & Legumes		3 of 4	
Food	Journal	Date	Location; Quote, Notes and details
Corn, roasted	SANDERSON, Henry W.	late July 1846	Missouri trail; "appropriated some ... roasting ears of corn ..."
	SHUPE	Aug 17	Kansas River crossing (Eudora KS) "We bought potatoes and corn from the Pawnees at reasonable terms and we lived very well. " NOTE: This was a Shawnee settlement
Corn, grain	PACE, W	Dec 16	Tucson; "The people ... contributed much by way of beans, corn, fruit..."
Corn, green	ELMER, Elijah	Oct 06	San Miguel (NM); "The natives came among us to sell green corn and bread."
Corn, ground meal	STANDAGE	Dec 16	Tucson; "...they had plenty of Flour, Cornmeal, Beans &c. for sale."; And at the Maricopa Village (Dec 24); "...Corn Meal, Flour Beans, ... and various other things brought in for sale."
	COOKE	Dec 24	Pima Villages; "...and I have brought full three days' of corn meal; making thirty-three, which I think will take us to San Diego." (CR p 52);
Corn, hominy	WILLIAMS	Dec 21	Pima Villages; "Such eating of Hominy..."
Corn, parched	TYLER	July 25	Near Craig (MO); "... made the best supper they could on parched corn." (Tyler, p 132)
	HOLMES	Dec 20	NW of Tucson (AZ); "Started ... with a little parched corn for breakfast."
Corn (unspecified)	CORAY	Oct 25	Pueblo Isleta, NM;
Flour, wheat	KEYSOR	July 16	Sarpy's Trading Post, Council Bluffs (IA); "... have drawn rations from Uncle Sam, a pound of flour..." NOTE: Flour was obtained at many settlements along the route. The more remote, the lower the quality of the flour. "Flour" and its manufacture is an interesting research topic of itself.
	SMITH, Albert	Aug 18	Hurricane Point; "... deal out flower pork beaf shuger and coff. To 19 meses..."
	SANDERSON, Dr.	Dec 16	Tucson; "... fine wheat raised here..."
	HOLMES	Jan 06, 1847	Gila River; "Flour reduced to 9 oz. a day."
Flour, gravy	HANCOCK	Jan 01, 1847	Gila River, Dateland (AZ); "...new years supper was composed of a little bread and coffee, and a little flour gravy."
Hops, wild	SANDERSON, Dr.	Sept 29	Rabbit Ear Creek (NM); "We found here wild hops..."
Mesquite, mush ("puding")	WILLIAMS	Jan 09, 1847	Colorado River (AZ); "...a good many men...gather Mesquite berries of Tornio, Screw, to feed to our teams. And we thought it not an act of robbery in appropriating a portion of it to our own use, by grinding it in a coffee mill and make mush of it. I thought it tasted good enough to eat with milk as it had a sweetish taste, and it made an excellent substitute for coffe. I found it vary nutritious for me, very plesant to eat, but not so pleasant in getting rid of it." NOTE: We interpret this as 'mush.'
	STANDAGE	Jan 10, 1847	Colorado River; "...others make puding..." NOTE: We interpret this as "mush."
Mesquite, raw & roasted	STANDAGE	Jan 10, 1847	Colorado River "...some detailed to go to the Brush and gather Muskets, a kind of sweet seed that grows on the tree resembling the honey locust. The Mules and men being very fond of this. The brethren use this in various ways some grinding it and mixing it in bread with the flour, ... some roast it or eat it raw."

Mormon Battalion Foods List

<u>Grains, Beans & Legumes</u>		4 of 4	
Food	Journal	Date	Location; Quote, Notes and details
Oats, wild	BLISS	June 05, 1847	San Diego; "Saw Indians harvesting wild Oats for bread" NOTE: Apparently Bliss used oats he collected for his horse.
Pancakes	various	various	NOTE: With the exception of a humorous statement by Abner Blackburn on September 20th, each time "pancake" or "flapjack" is used, it seems to be in connection with a Hispanic influence. This leads us to conclude most - if not all - such references are to tortillas rather than "Pancakes" we would think of. It seems that some references to "cakes" also suggest they were speaking of tortillas.
Peanuts	SANDERSON, Dr.	Aug 30	Council Grove; "... I thought some eight or ten out of that number [of sick men] was indisposed from eating quantities of grapes, peanuts,..."
Peas	SANDERSON, Dr.	Dec 16	Tucson; "Plenty of Quinces, Peas, ..."
	BLISS	Feb 12	San Luis Rey; "...Pease..." NOTE: specifically he mentions the young seedlings which should have matured by the enlistments end.
Rice, unspecified	SMITH, Albert	Aug 18	Hurricane Point; "...and rice for the sick."
	HESS	Nov 18	East of Santa Fe with Brown Sick detachment; "we found we had only three-fourths rations of ... rice..."
Wheat, boiled	BIGLER	Dec 16	Tucson; "We lay by one day at Tucson, eating boiled wheat..."
Wheat, cakes	BORROWMAN	Jan 01, 1847	Dateland (AZ); "This morning I had for my new years breakfast a piece of cake made of the flour of a little corn and wheat I grownd [ground] in our coffee mill"
Wheat, grain	HOLMES	Dec 17	Tucson; "Took what publick wheat was wanted."
	COOKE	Dec 17	Tucson; "I have issued two quarts of [dry] wheat to every three men." (CR, p 43)
Wheat, ground	HOLMES	Feb 19, 1847	San Luis Rey; "...some wheat meal..."
Wheat, parched	HYDE	Dec 18	Marana (AZ); "My mess had nothing for supper but a little parched wheat."

Mormon Battalion Foods List

<u>Meats & Nuts (proteins)</u>		1 of 4	
Food	Journal	Date	Location; Quote, Notes and details
Acorns	HANCOCK	Jan 20, 1847	San Felipe village (CA); "I got some acorns and they stopped my bowel complaint." NOTE: For an interesting text on acorn preparation and recipes, go to: http://www.californiaoaks.org/ExtAssets/acorns_and_eatem.pdf
	WHITWORTH, Robert	Jan 21, 1847	Warner's Ranch (CA); "The Indians live on Beef and Acorns."
Antelope	ELMER	Sept 27	About 2 days northeast of Rabbit Ears, New Mexico; "... and today I shot an antelope about 3 miles from camp and I with two others packed it to camp."
Bacon (? Salt pork)	JUDD, Zadok	July 20	"... we commenced drawing rations of flour and bacon." NOTE: This likely was salted pork.
Bear	SANDERSON, Dr.	Nov 25	Whitmire Pass (NM); "We got the Bear down the mountain and its [hide] was soon taken off. It was given to Col Cooke th[e meat] divided out among the officers." NOTE: Dr. Sanderson relates the killing of the sow bear by John Baptiste Charbonneau in detail.
Beef, fresh	KEYSOR	July 16	Soldier's Camp (IA); "...have drawn rations from Uncle Sam, a pound of flour, a pound of beef ..."
	SMITH, Albert	Aug 18	Hurricane Point; "... I have a plenty to do and I had to deal out flower pork beaf [beef]..."
	HOLMES	Dec 12	San Pedro River; "Kild a number of cattle. Beef plenty."
	PACE	Feb 09, 1847	San Luis Rey; "We had roast beef, boiled beef, fried beef and every other kind then known at once."
Beef, "melt" [sic – "milt"] or spleen	TYLER	Dec 02	Rancho San Bernardino, Sonora, Mexico. "I made my supper mainly from the roasted melt of spleen of the animal." Tyler, p 212. NOTE: The correct spelling is "milt" and likely a corruption from earlier variations of "milk" of various languages, indicating the obtaining of fish roe. Weekley, Ernest; An Etymological Dictionary of Modern English", 1921
Beef, dried, smoked, or jerked	TAGGART	Dec 07	Near modern Naco, AZ, "Several more wild Cattle were shot and brought into camp the meat of which was Jerked or dried."
	JONES Kearny group	June 14, 1847	Sutter's Fort (CA); Dried some beef, baled some flour and port." NOTE: The Kearny group was laying in stores for their rapid ride east back to Fort Leavenworth.
	STEELE Salt Lake route	July 01, 1847	Willow Springs (WY); "Our hunters came in loaded with meat. We stopped and dried meat here..." NOTE: The group was close behind Brigham Young's pioneering group headed towards the Salt Lake valley.
Beef, entrails	WILLIAMS	Oct 26	Tome (NM); "the entrails is prepared in this way. Cut off a rope [of intestines] about 3 or 4 feet long, regulated according to appetite, turn them inside out, rinse them if you have plenty of water obtainable, if not to take them as they are and roast them or boil them. Either mode was relisable."
Beef, hide	WILLIAMS	Oct 26	Tome; "preparing the hide for eating I get a piece say about 10 to 14 inches, singe the hair off, then scrape it with my butcher knife, and then put it into the camp kettle with water, and boil it for three or four hours, and it becomes as tender as trype, and the soup most delicious" NOTE: See "Leather (rawhide)" below
Beef, soup	TAGGART	Dec 03	Rancho San Bernardino; "We antispated gratifyeing our apeties once again with a full meal of beef Soup"

Mormon Battalion Foods List

Meats & Nuts (proteins)		2 of 4	
Food	Journal	Date	Location; Quote, Notes and details
Bird, Chicken	BLACKBURN, Abner	Late July 1846	Missouri River route; "Chickens, ducks, pigs, and all kind of vegetables suffered without price."
	SANDERSON, H.W.	Late July 1846	Missouri River route; "appropriated ... on the route ... chickens"
Bird, Crow or Raven	BIGLER	Jan 18	Vallicito Spring (CA); "One of the soldiers shot a crow, it proved to be a fat one, he picked it, dressed, cooked and ate it, he said it was good eating." NOTE: Randy Madsen suggests this may have actually been the larger raven. Both birds winter over in the area so it could have been either one.
Bird, Duck	BLACKBURN	Late July 1846	Missouri River route; "Chickens, ducks, pigs, and all kinds of vegetables suffered without price."
	WHITWORTH	Feb 03, 1847	Mission San Luis Rey - Guajome marsh (?); "There is a large swamp where we go to shoot ducks."
Bird, Geese, wild	SMITH, Az	Oct 27	Jarales (NM); "There were a good many wild geese killed today."
Bird, Pelican (probable)	HANCOCK	Jan 06, 1847 (written Jan 7th)	Gila River valley; "Last knight there was a Pelacan killed – it measures 9 feet from one point of the wing to the other – one man made a cap out of the gullet" NOTE: One can only surmise the rest of the pelican didn't go to waste either. Walter Davis was identified as the marksman.
Bird, Turkey	BLISS	Sept 28 (29th entry)	Rabbit Ear Creek (NM); "Last night Bro. Freeman brought in one Antelope & 1 Turkey which he killed yesterday."
	SHUPE Brown group	Nov 02	Trinidad (CO) on the Purgatory River; "Some of the boys kild Some turkeys thi night by moon Shine"
Bird, Turkey Buzzard	BLACKBURN Willis group	Early Dec 1846	Near Turley's Mill (NM), NE of Taos; Autobiography, p 6
Buffalo, fresh	HYDE	Sept 06	"I took supper at Lieutenant Ludington's. Had buffalo meat, which was the first I ever tasted."
	BLISS	Sept 07	Walnut Creek (KS); "Lieut. Merrill shot a buffalo calf which was fine meat."
Buffalo, pot pie	SMITH, Az	Sept 07	Walnut Creek; "...had a first rate supper consisting of a Buffalo pot pie."
Clams	BORROWMAN	Mar 18, 1847	San Diego; "I gathered some clams, took them home, cooked and ate them."
Deer (venison)	SANDERSON, Dr.	Sept 24	Sandy Creek (KS); "Several Antelope killed to day + one Deer."
	SHUPE Brown group	Nov 14	West of Bent's Fort; "Capt Brown kild a deer"
	BLISS	Nov 27	Animas valley (NM); "Our boys killed a number of Antelope & Black tail deer today."
Eggs, chicken	LEE	Oct 22	Las Vegas; "... traded them ... for corn, onions & eggs ..."
	SANDERSON, Dr.	Oct 24	North of Albuquerque; "the inhabitants furnish us with Corn, Eggs, Chickens, Whiskey Onions +c.
Eggs, duck	BORROWMAN	May 6, 1847	San Diego; "... found a duck nest and 8 eggs in it. There were all good and made a good supper."
Fish, dried	SANDERSON, Dr.	Sept 24	Sandy Creek; Recounts that some of Col. Prices men purchased sugar and "two pounds of dried fish" from Battalion's Sutlers after they got caught away from their unit without food rations. We presume at least some of the Battalion purchased some too though we have no direct quote to that effect.

Mormon Battalion Foods List

Meats & Nuts (proteins)		3 of 4	
Food	Journal	Date	Location; Quote, Notes and details
Fish, fresh water	BIGLER	Sept 11	Kinsley (KS); "the boys caught fish, such as cat, white bass and buffalo fish by spearing them with bayonets." NOTE: The men recount using hooks, spears, bayonets and swords to take fish along the Arkansas River, Rio Grande, San Pedro River and Gila Rivers. You could say the officers had 'sword-fish'.
	BLISS	Sept 28	NW of Clayton (NM); "...took my hook & line & caught 4 fine fish ... they are a little different from the Trout in the States...
	KEYSOR	Nov 12	Garfield (NM); "Bill Prowse & some others caught some catfish
Fish, salt water	BORROWMAN	Mar 21, 1847	San Diego; "...got some mussels and oysters and caught four fish."
	BLISS	Mar 29, 1847	San Diego; "got a fine mess of fish & Oysters"
Goat	BLACKBURN	Nov 01	San Antonio (NM); "Our meat was poor. The sheep and goats had been running together for so long there was little difference in their looks."
	COOKE	Nov 17	Cookes Pass (NM); "Tasson, a guide, hunted and killed in the mountain, two goats which were found to have cropped ears."
Horse, raw	COOKE	Dec 03	Rancho San Bernardino (Sonora, RoMx); Cooke reported that John Allen, who had strayed from camp, "...had been stripped of every thing by Indians, and, having no knife, had eaten of a dead horse, in the fashion of a wolf." NOTE: We take this to mean he used just his teeth to gnaw into the meat.
Leather - rawhide, chewed or soup	WILLIAMS	Oct 26	Los Chavez (NM); "In preparing the hide for eating I get a piece say about 10 to 14 inches, singe the hair off, then scrape it with my butcher knife, and then put it into the camp kettle with water, and boil it for three or four hours, and it becomes as tender as trype, and the soup most delicious." NOTE: See "Beef, hide" above
	DENNETT, Daniel	Nov 23	Separ (NM) - according by Ricketts to this date (p 86); "Daniel Dennett cut narrow strips along both edges of his belt and chewed the leather, hoping to obtain a little nourishment as well as moisture in his mouth and throat."
	CORAY	Jan 08, 1847	Near Yuma; "... the men scraped the hide, and cut it into strips to chew as they walked along."
Mule	CORAY	Jan 08, 1847	Near Yuma; "David Rainey's mule died. ... he was given his choice of the animal to eat when it was cooked. David chose the heart and liver because he thought they would be tender and more edible."
Mussels	BORROWMAN	Mar 21	San Diego; "...got some mussels and oysters and caught four fish."
Nuts, pine	LEE	Oct 10	Santa Fe; "Around the walks ... are found Pine nuts, apples ... sold by Women & girls..."
	WHITWORTH	Oct 13	Santa Fe; "pinones"
Oxen (beef)	COOKE	Nov 02	Truth or Consequences (NM); "I shall use about ten of the oxen for beef."
Oysters	BLISS	Mar 29, 1847	San Diego; "got a fine mess of fish & Oysters"
	BORROWMAN	Mar 22, 1847	San Diego; "...got some mussels and oysters and caught four fish."
Pork, fresh	BLACKBURN	late July 1846	Missouri River; "The farmers along the rout thought we were a rough sett. Chickens, ducks, pigs, and all kind of vegetables suffered without price."
	CORAY	Jan 22, 1847	Waner's Ranch; "finest meal they had"

Mormon Battalion Foods List

Meats & Nuts (proteins)		4 of 4	
Food	Journal	Date	Location; Quote, Notes and details
Pork, salt ("pickled")	STANDAGE	Jan 18, 1847	Plaster City (CA); "I was glad today to go and pick up the pork rinds that were thrown away by the Colonel's cook, although they were in the sand."
Rabbit	TERRELL Brown group	Nov 10-15	Arkansas River (CO); used on the way to Pueblo (Ricketts, p 236)
Sardines	LEE on return trip to Council Bluffs	Oct 30	Willow crossing of the Cimarron River (OK); Lees group had dinner as guest of Santa Fe trader "Mr. Norris Colbourn" who was soon to be murdered on the trail. "[Colbourn] Prepared a good supper & came in Person & took us to his Table where we partook fo the rich Festaval After supper he gave me a box of Sardins & about 4 pounds of chees. The next morning sent us down another boiler full of hot chocolate." NOTE: We have included this reference as such items were carred by sutlers as well.
Sheep "lights" (lungs)	TYLER	Nov 02, entered under this date	Rio Grande Valley; "On one occasion, the author, being behind all, seeing a smoke a little way from the road side, went to it and found that parties who were a little in advance of him had butchered one of these [sheep] stragglers and consumed every thing but the lights. Of these he made a sumptuous dinner by roasting them on the coals and eating without water. His thoughts at partaking of this repast are still vividly impressed upon the author's mind. He had frequently heard it said in his childhood that if a person ate sheep's light's he would be sure to go blind. Although the story came to his mind it didn't have much weight with him upon that occasion. The craving for food was so strong that he readily made up his mind to eat the lights and take his chances." Tyler, p 185
Sheep & lambs	BLACKBURN	Nov 01	San Antonio (NM): "The sheep and goats had been running together for so long there was little difference in their looks. When they were dressed out, we could hold them over a fire with a stick. We could eat them as fast as the quartermaster could issue them."
	COOKE	Nov 02	Mesa el Contraderio (NM); "Three hundred sheep were brought into camp but proved to be very poor – mostly lambs..." NOTE: Cooke authorized Lt Smith (QM) to purchase 300 sheep.
Snake, roasted (rattlesnake?)	PACE, Wm	Dec 25	Pima villages; "Lieutenant Rosencrance said he enjoyed the luxury of a piece of roasted "rattlesnake" with an old Indian chief, same day and place"

Mormon Battalion Foods List

<u>Vegetables</u>		1 of 2	
Food	Journal	Date	Location; Quote, Notes and details
Agave, raw	SANDERSON, Dr.	Nov 22	Separ (NM); "Some of the men to day have made themselves sick by eating a species of Palm. that grows abundantly on the Plains and used by the Indians for food and also drink is made from it by fermentation and then by distillation called Muscal. one kind of this same species of tree used for soap making. its effects upon the system raw produces violent vomiting and extreme suffering." NOTE: See further information under "Amole" in the "Other" section below.
Agave, baked	WHITWORTH	Nov 21	Perhaps seen at Cow Springs (?) and recorded a few days later. "Muscal is a large root about as big as a man's head, with long prickly notched leaves which are stiff as whalebone. The indians prepare the root by digging a hole in the ground and lining it with stones, after which they put in fire until the stones are nearly red hot. They then put in the roots and cover them with the leaves of the plant, then putting more Stones and earth over this, they light a fire over all and keep it burning for 48 hours. After this the Mescal is fit for use. It has a sweet pleasant taste not very unlike Honey and is very nourishing. If we had ever laid by time enough to cook this root, we Should have got along much better. The root when raw is very bitter and produces sickness when eaten. This Root and Bef are the sole food of the Indians of this part of the world"
	BIGLER	Dec 01	Rancho San Bernardino (Mexico/AZ border); "Here we were visited by Apache Indians to sell us baked roots they call "Mescal." It is sweet and nutritious and we are very fond of it."
	ELMER	Dec 02	Rancho San Bernardino; "There is a kind of root, they call bread root which they bake in a hole in the ground for 24 hours, then it is very sweet and good." NOTE: Madsen suggests this may be some other plant which roots are used, however the date, context, method of preparation and resulting "sweet" description strongly suggests this is baked agave/mescal.
	STANDAGE	Dec 02	Rancho San Bernardino; "Here we found the Alpacha Indians who were very friendly and had mules, ponies and a kind of root baked which the Spaniards calls Nas Kur, very sweet." NOTE: "Nas Kur" is not understood but may be a corruption of "mes cal." For a description of how the 'pina' or heart of the agave (or maguey) plants were prepared, go to: http://www2.palomar.edu/users/ddozier/California/regions/Southern/agave_pit_roasting.htm
"Bread root"	ELMER	Dec 02	Rancho San Bernardino; "There is a kind of root, they call bread root which they bake in a hole in the ground for 24 hours, then it is very sweet and good." NOTE: The date, context, method of preparation and resulting "sweet" food description strongly suggests this is baked agave/mescal. See "Agave, baked", above. However, Randy Madsen wonders if this could be, "roots provided by the locals in NM and AZ (Apache) as being Indian bread root, aka Prairie potato, Prairie turnip, and many other names - a starchy tuber."
Cabbage	BLISS	Feb 12, 1847	San Luis Rey; "... cabbage ..." NOTE: specifically Bliss mentions the young seedlings which should have matured about 60 days later. We presume they ate cabbage though we have no definitive statement.

Mormon Battalion Foods List

<u>Vegetables</u>		2 of 2	
Food	Journal	Date	Location; Quote, Notes and details
Mescal leaves, baked	BIGLER	Dec 02	Rancho San Bernadino; "It is sweet and nutritious and we are very fond of it." NOTE: See "Agave, baked" above
Mustards, boiled	WILLIAMS	Jan 25, 1847	Temecula Valley (CA); "We found plenty of wild mustard to go with our beef" (Tyler p 251)
	HOLMES	Jan 27, 1847	Rancho Agua Hedonia (CA); "Had some boiled mustard for supper."
Onions	TYLER	July 24	Missouri River; "picked up two or three potatoes, went a few steps to an onion bed, pulled up two or three of them..."
	LEE	Oct 10	Santa Fe; "Around the walks ... are found Pine nuts, ... onions ... sold by Women & girls..."
	WILLIAMS	Dec 21	Pima Villages; "they also cultivated the soil, and produce corn and beans, onions..."
Parsley, boiled	HANCOCK	Sept 05	Cow Creek (KS); "...found some parsley growing I got my arms full and calld down to the camp and it went first rate it being well boiled and tender we put on some vinegar and it became a rarity."
Pedistol	CORAY	Nov 17	Cooke's Pass; "The vegetable kingdom seemed also disarranged in producing strange things to the traveler's astonishment such as mescale and podistel and other vegetables..." NOTE: It is interesting to speculate on what this "pedistol" actually was as mentioned by Coray and brought to our attention by Randy Madsen. The genus name of legumes generally known as North American "Indian breadroots" is Pediomelum. There are over 30 species spreading across the plains and into California. The species, "Pediomelum megalanthum" or "Intermountain Indian breadroot" is native in New Mexico and Arizona. See the USDA plant database entry at http://plants.usda.gov/core/profile?symbol=PEME7 . Also, see the Wiki article on the related "Prairie Turnip" at: http://en.wikipedia.org/wiki/Psoralea_esculenta .
Potatoes	SHUPE	Aug 17	Fish's Ferry (KS); "We bought potatoes and corn from the Pawnees at reasonable terms and we lived very well."
Pumpkin	BLISS	Mar 27	San Diego; "a Spanish family moved into town to day among the things he brought a load of Pumpkins in eccelence preservation"
Pumpkin, sauce	HOLMES	Dec 25	"Christmas camp" SW of Phoenix, Arizona; "Eat our Christmas supper by the roadside. Had cold beans, pancakes & pumpkin sauce."
Pumpkin, dried	STANDAGE	Dec 21	Pima Villages; "the Pemose Indians ... came to trade... bringing meal ... dried pumpkins ..."
Pumpkin, stewed	WILLIAMS	Dec 22	Pima Villages; "the Indians treated some of our men to stewed pumpkin."
Squash	TYLER	Dec 21	Pima Villages; "We also traded some old clothing for corn, beans, molasses, squash, etc."
	WILLIAMS	Dec 21	Pima Villages; "they also cultivated the soil, and produce corn and ... and melons beside squashes.""
Watermelon	SANDERSON, Dr.	Dec 16	Tucson; "plenty of Quinces, Pears, Water Melons"
	HANCOCK	Dec 25	Maricopa Wells (AZ); "this is christmas day and yesterday there was watermellons for sale and they was good mellons too."

Mormon Battalion Foods List

<u>Fruits</u>		1 of 2	
Food	Journal	Date	Location; Quote, Notes and details
Apples	LEE	Oct 10	Santa Fe; "Around the walks ... are found Pine nuts, apples, ... sold by Women & girls..."
	ELMER	Oct 24	Albuquerque; "There is a good deal of fruit here. Apples and grapes that are ripe, that are like raisins, only they are not dried. Dried pears and plenty of peaches ..."
	CORAY	Oct 25	Pueblo Isleta (NM); "The Spaniards brought to us apples, grapes, corn & wine for sale..."
Apricots	COOKE	Aug 19	Santa Fe; "The market is well supplied; ... apricots, etc." NOTE: Cooke is with General Kearny in Santa Fe prior to taking command of the Battalion. We presume apricots were still available in mid-October, though perhaps dried.
Cactus, Saguaro "molasses"	SANDERSON, Dr.	Dec 22	Pima Villages; "They make from the fruit of the King Cactus a kind of Sugar or Molasses which some say is very delicious. I have seen it and feel willing to abide by the tastes of others." NOTE: So, it appears that someone tried the cactus fruit molasses.
Cherries	SANDERSON, Dr.	Sept 29	Rabbit Ear Creek ... we found here wild hops, cherries, currants, plumb trees but no fruit; In July 1847 there are cherries ripening in California about the time the Battalion is discharged
Coconut	BLISS	Feb 12, 1847	San Luis Rey; "here are many kinds of trees I never saw before the Date, Cocanut Olive Pepper &c" NOTE: the coconut is a single seed drupe - a fruit. Including "nut" in the name is confusing.
Currants	SANDERSON, Dr.	Sept 29	Rabbit Ear Creek; "...we found here wild hops, cherries, currants, plumb trees but no fruit."
Dates	BLISS	Feb 12, 1847	San Luis Rey; "here are many kinds of trees I never saw before the Date, Cocanut Olive Pepper &c"
Figs	BLISS	Apr 9, 1847	San Diego; "Figs are now full size on the trees & Pears & Peaches are as large as the end of my finger." KRH - we presume they ripened before the Battalion left though it is not specified.
Grapes	ELMER	Oct 24	Albuquerque; "There is a good deal of fruit here. Apples and grapes that are ripe..."
	CORAY	Oct 25	Pueblo Isleta; "The Spaniards brought to us apples, grapes, corn & wine for sale..."
	SANDERSON, Dr.	Dec 16	Tucson; "... plenty of Quinces, Peas, Water Melons, and Grapes."
Grapes	LEE	Oct 10	Santa Fe; "Around the walks ... are found Pine nuts, ... large grapes, ... &c sold by Women & girls..."
	BLISS	Oct 23	Albuquerque; "... bought Grapes of the inhabitants of the Rasin kind sweet & delicious"
	BLISS	Feb 12, 1847	San Luis Rey; "the stems ... will hold a pint of Grapes & probably more – they are of the Raison kind"
Melons	LEE	Oct 10	Santa Fe; "Around the walks ... are found Pine nuts, apples, ... mellons &c sold by Women & girls..."
Olive trees	COOKE	Jan 29, 1847	San Diego; "There are ... olive and picturesque date trees..."
	BLISS	Feb 12, 1847	San Luis Rey; "...trees I never saw before, the Date, Cocanut Olive Pepper &c"
Orange	BLISS	Feb 05, 1847	San Luis Rey; "...[there is] a Sun Dial in the center of the Square with orange trees &c"
	STANDAGE	Mar 20, 1847	San Juan Capistrano; "beautiful fruit trees here such as Quince, Pear, Apple, Orange, Fig, Olive, Pepper, date and a large Vineyard."
Peaches	LEE	Oct 10	Santa Fe; "Around the walks ... are found Pine nuts, apples, peaches ... &c sold by Women & girls..."
	ELMER	Oct 24	Albuquerque; "Dried pears and plenty of peaches..."
Pears, dried	ELMER	Oct 24	Albuquerque; "Dried pears and plenty of peaches..."

Mormon Battalion Foods List

Fruits		2 of 2	
Food	Journal	Date	Location; Quote, Notes and details
Pears, fresh	LEE	Oct 10	Santa Fe; "Around the walks ... are found Pine nuts, apples, peaches ... &c sold by Women & girls..."
	BLISS	July 15, 1847	Los Angeles; "... here I ... eat most delicious Pears &c"
Plums	WHITWORTH	Aug 17	Eudora; "here we found plenty of Wild Grapes and Plums" and on Aug 28 at Council Grove, Whitworth notes, "Passed the time hunting grapes and plums"
Pomegranates	COOKE	Dec 16	Tucson; "...the only fruits observed were pomegranates and quinces."
	PETTEGREW	Feb 03, 1847	San Luis Rey; "There were ... several other kinds of trees ... peach, pear Pomegranate and quince trees."
Rasins	BLISS	Oct 23	Albuquerque; "... bought Grapes of the inhabitants of the Rasin kind sweet & delicious" NOTE: See "Grapes" above.
Quince	SANDERSON, Dr.	Dec 16	Tucson; "Plenty of Quinces, Peas, Water Melons and Grapes."
	TYLER (p 228)	Dec 17	Tucson, "Quince and semi-tropical fruits were bought here..." NOTE: Cooke and Hancock also mention the quince, with Hancock writing, "I have saved some seeds."
Tomato	HANCOCK	Oct-Nov 1846; Feb 03, 1847	Tomatos were and still are an important ingredient in Mexican foods. While the tomato fruit (or berry, or vegetable) is not specifically mentioned along the Rio Grande, "chili colorow" - fresh salsa - would have had tomatos as an ingredient.; Levi Hancock specifically mentioned tomatoes in his poem "Bountiful California" or "a better story ... about Sonora", which implies they were eating tomatoes.

Mormon Battalion Foods List

Dairy & dairy products		1 of 1	
Food	Journal	Date	Location; Quote, Notes and details
Butter	TERRELL, John	Oct 24	Mora River; "...dinner "consisted of bread, milk and butter of the best kind"
Cheese, goat	TYLER (p 164)	Oct 10	San Miguel; "...the milk pail caught frequent droppings of nanny–berries, which were carefully skimmed out with the fingers. Possibly, this may in some degree account for the extreme richness of the goat's milk cheese." [NOTE: "nanny–berries" are goat poop droppings.]
Ice cream	WHITWORTH	Aug 08	Weston (MO); "Weston is a nice little town... After making our purchases and refreshing ourselves with ice cream &c, we started on our way back..." NOTE: Whitworth's journal does not specify the date, however, Henry Standage notes that, "[Aug] 8. Went to Weston to trade a little..." Azariah Smith and his father had a furlough on the 10th and went to Weston.
Milk, cow	BLACKBURN	late July	Missouri River route; "One soldier drove off a cow and milked her to the fort and then sold her for whiskey."
Milk, goat	SHUPE	Oct 05	Las Vegas; "...Spanyards came in to our camp with bread and milk the bread wos verry good and the milk also altho it wos goats milk"

Confections		1 of 1	
Food	Journal	Date	Location; Quote, Notes and details
Chocolate	SANDERSON	'Dec 31	East of Dateland; "Our second course consisted of chocolate and bread."
Honey	BLACKBURN	late July	Missouri River route: "One set of thieves carried off several beehives while the oners were at dinner."
	BLISS	Aug 21	Blue Mound (Hurricane Hill) KS, "I heard the hum of Bees & soon found them. I then returned to Camp and invited some particular friends & we had a Rich repast on so high an Elevation."
Penoche or Penuche (Anglo); Cajeta (Spanish)	BLACKBURN	Oct 10	Santa Fe: "...penoche, tortillas, chile colorow, etc." See the WIKI article for "Penuche" - one of the variant spellings. Penuche is a fudge-like confection similar to caramel. In Spanish, it's called Cajeta - made from goats milk and more like a carmel topping for ice-cream, but better. See the article at: http://www.patismexicantable.com/2013/02/homemade-cajeta/
Pies	WHITWORTH	Oct 13	Santa Fe; "... Mexican women who sell fruit, pies, pinones, Onions, Cayene Pepper, Bread &c"
Sugar	KEYSOR	July 16	Sarpy's: "... for the first time have drawn rations from Uncle Sam, a pound of flour, a pound of beef, some salt, coffee, & suger per day..."NOTE: Sugar was part of ration allotments. The sugar was generally provided as a 'cone' of very hard 'dark brown sugar.' Sugar had to be "nipped" or scraped off the cone.
	SMITH, Albert	Aug 18	Blue Mound; "I have a plenty to do and I had to deal our flower pork beaf shugr..."
	BORROWMAN	Jan 01, 1847	Dateland; "In the evening I baked me a cake and put [in] my ration of sugar which made me an excellent supper altho not a very full one." NOTE: this reference may be to something other than a tortilla.
	HOLMES	Feb 25, 1847	San Luis Rey; "Drawed rations of sugar & coffee on 26[th]."

Mormon Battalion Foods List

<u>Beverages</u>		1 of 1	
Beverage	Journal	Date	Location; Quote, Notes and details
Alcoholic, Brandy	JONES, N	Oct 19	Santa Fe; "There are some parts where grapes are abundant, out of which they make some wine and brandy." NOTE: Brandy is a distilled wine made from grapes or fruits whereas whiskey is a distilled product produced from grains.
	SANDERSON, Dr.	'Jan 01, 1847	Dateland; "Lt Smith opened the last bottle of Brandy to celebrate the birth of the new year. We drank to wives children and friends."
Alcoholic, Mescal	BIGLER	Dec 14	Tucson; "Some of the men tasted the whisky and say it is poor stuff." NOTE: This event took place at the "distillery" about 25 miles east of Tucson.
Alcoholic, Whiskey (unknown grains)	BLACKBURN	late July	Missouri River; "One soldier drove off a cow and milked her to the fort and then sold her for whiskey."
Alcoholic, Wine	CORAY	Oct 25	Pueblo Isleta; "The Spanish brought us apples, grapes, corn and wine for sale..."
	BLISS	July 15, 1847	Los Angeles; "the Orchards & Vineyards are as fine as heart can wish – here I drank of the Juice of the Vine to my satisfaction & eat most delicious Pears &c"
	JONES, N	Oct 19	Santa Fe; "... they make some wine and brandy."
	SANDERSON, Dr.	'Dec 31	East of Dateland; "This being new years eve, all the officers thatt is Smith Mj Cloud Stoneman and Mr Dent his clerk assembled at my Tent to celebrate the same by drinking a coffee pot full of hot Port wine sweetened. Our second course consisted of chocolate and bread." See the article: http://en.wikipedia.org/wiki/Port_wine
	STANDAGE	July 04, 1847	Los Angeles; "Wine was then passed round to the soldiery ..."
Chocolate, hot (American style)	LEE	Oct 31	Willow crossing of the Cimarron River – "...set us down to a boiler full of hot chocolate..."
Chocolate, hot "Champurrado" (Mexican style)	- <i>Speculative</i> -	mid-October	Champurrado [prn: "champ-purrr-AHH-dough] – a sweetened hot chocolate drink thickened with corn meal and sometimes spiced with vanilla and cinnamon – was reportedly made the richer Mexicans of New Mexico. Though not specifically mentioned by Battalion journalists, it may have been lumped under the name of "hot chocolate." Officers may have been more likely to have sampled the drink. See recipes at: http://www.mexicoinmykitchen.com ; and http://www.myhumblekitchen.com/2012/11/how-to-make-champurrado-a-Mexican-thick-hot-chocolate/
Coffee	WILLIAMS	July 16	Sarpy's store; "We were ... drawing rations of flour, bacon, and sugar and coffee from this date."
	SMITH, Albert	Aug 18	Blue Mound; "I have a plenty to do and I had to deal our flower pork beaf shugr and coff[ee]..."
	HOLMES	Feb 25, 1847	San Luis Rey; "Drawed rations of sugar & coffee on 26[th]."
Tea, ginger	BIGLER	Dec 01	Guadalupe Pass (NM) area; "Having a little ginger with me that I brought from Fort Leavenworth, I made tea and drank it with my food...."
Water	Many references	Nearly every day	Water was needed and appreciated in both its pure and polluted states, with the "buffalo wallow" experience being the most disgusting example of bad water As Christopher Layton expressed it though, "No luxury was ever more thankfully received." (Sept 16)

Mormon Battalion Foods List

<u>Spices</u>		1 of 2	
Spice	Journal	Date	Location; Quote, Notes and details
Ginger, ground	WILLIAMS	Nov 15	White Ox (Macho) Creek (NM); "There was a cold snow and rain alternate. I became wet and cold, but I was fortunate enough to have a little cayene pepper and ground ginger along with me. I took about 1/2 spoonful dry which soon warmed my system."
Herbs, "bitter"	JONES, N	Oct 19	Agua Fria NM; "They raise bitter herbs, also corn and beans and some wheat..."
Lemon, extract	WILLIAMS	Nov 23	Playas Lake (NM); "I have a little lemon syrup left yet, and sit me down, unsling my knapsack, take the bottle and take a very little and moisten my lips with it, and several of my brethren that are near me the same, which quenched our thirst."
Molasses	SCOTT	Oct 07	Las Vegas (NM); "They seemed friendly & brought cakes, cheese, corn molasses ... to sell." NOTE: this is recorded under the Oct 08 entry but occurred the prior day.
	BIGLER	Oct 19	Rio Grande valley; "our camps were more or less visited every day by the Mexicans to sell us woodk corn, beans ... molasses to barter for old shoes, old boots ..." NOTE: The entry was written after Oct 19 but appears under that date in the journal.
	KEYSOR	Oct 19	Rio Grande valley; "Their sugar & molasses they extract from the corn stock;" NOTE: Written after Oct 19 but appears under that date in the journal.
	SANDERSON, Dr.	Dec 22	Pima Villages; "They make from the fruit of the King Cactus a kind of Sugar or Molasses which some say is very delicious. I have seen it and feel willing to abide by the tastes of others." NOTE: Someone tried the cactus fruit molasses. We have included this entry twice - previously under "Fruits."
	STANDAGE	Dec 24	Maricopa Wells; "Molasses, Pumpkins, Corn Meal, Flour Beans, Buckskins, Ponies and various other things brought in for sale."
Pepper, black	KEYSOR	Jan 27, 1847	San Luis Rey; "...black pepper trees" [in the Mission plaza]
Pepper, cayenne	WHITWORTH	Oct 13	Santa Fe; "... who sell fruit, pies, ... Cayene Pepper, Bread &c"
	WILLIAMS	Nov 15	White Ox (Macho) Creek (NM); "...I was fortunate enough to have a little cayene pepper and ground ginger along with me."
Peppers, red	SANDERSON, Dr.	Oct 05	Moro River; "occasionally during the day you would pass by the road side a group of Mexicans with Whiskey Bread red peppers and onions for sale"; and on Oct 25 near "...our dinner was brought in it consisted of Stewed Pepper and one Egg cooked with the pepper and some Tortillas. no meat. it was amusing to see myself and Smith over this dish. it was so hot and fiery. we got through it with the assistance of a great deal of water."
Saleratus (baking soda)	SMITH, John G. (near Pueblo)	May 2, 1847	Soda Springs (CO); "These springs and their surroundings would be an excellent study for scientists. To see soda or saleratus streaming from the earth, all ready for use, without the aid of man, and that, too, of the best and purest quality, is certainly marvelous. This is one of those facts that are stranger than fiction." NOTE: Saleratus is pronounced, "sal-ah-RAY-tuss."

Mormon Battalion Foods List

<u>Spices</u>		2 of 2	
Spice	Journal	Date	Location; Quote, Notes and details
Salt	KEYSOR	July 16	Sarpy's store; "have drawn rations ... some salt..."
	SMITH, Albert	Aug 18	Hurricane Point; "...once a weak we done beans salt candles soap vinegar and rice for the sick." NOTE: Smith is acting as an assistant quartermaster to distribute food and supplies to his Company.
	TYLER (p 228)	Dec 17	Tucson; "On arriving at Tucson, the Battalion had been some time without salt, and only three bushels could be obtained there."
	BLISS	July 09, 1847	? Agua Hedonia (CA); "... 100 Acres of Salt about 1/2 an Inch deep ... many places 1 1/2 Inches ... I took about a pint for my use" NOTE: A ecological report suggests the salt flats were seasonally exposed. When the Battalion arrived during the wet winter, the salt flat was flooded. By the summer, it had dried out and the salt available to collect.
Vinegar	SMITH, Albert	Aug 18	Hurricane Point; "" NOTE: See "Customs of service for non-commissioned officers" p 266 (para 697)
	HANCOCK	Sept 05	Cow Creek; "... found some parsley ... it being well boiled and tender we put on some vinegar and it became a rarity"

Mormon Battalion Foods List

Medical items		1 of 2	
NOTE: This list of medications and items mentioned by the Battalion is certainly not representative of all that Dr. Sanderson would have had on hand. Research continues into understanding what training, equipment and medications Dr. Sanderson and his cohorts had available to them.			
Item	Journal	Date	Location; Quote, Notes and details
Arsenic	RICKETTS	Sept 04	Little Arkansas River, KS; NOTE: We could not locate Rickett's source for this claim (pages 50-51), but include it based upon the following: "Arsenicals have been used since ancient Greek and Roman civilizations and in the Far East as a part of traditional Chinese medicine. In Western countries, they became a therapeutic mainstay for various ailments and malignancies in the 19th and early 20th centuries." Source (accessed Feb 2015); http://www.ncbi.nlm.nih.gov/pubmed/20052806
Bayberry, bitters of bark	RICKETTS	Sept 04	Little Arkansas River, KS; NOTE: We could not locate Rickett's source for this claim on pages 50-51. "During the early 19th century, bayberry was popularized by Samuel A. Thomson, a New England herbalist. He touted it for producing "heat' within the body. Thomson recommended bayberry for colds, flu, and other infectious diseases in addition to diarrhea and fever." Thus, more likely used by Mormon herbal doctors. Source (accessed Feb 2015): http://holisticonline.com/herbal-med/_Herbs/h75.htm
Calomel	Most of them	Primarily Pre-Santa Fe	NOTE: Mercury (mercurous chloride) used as a purgative [strong laxative designed to clean out the bowels] and to kill infections but often had heavy metal poisoning consequences. It was standard Army medical treatment until after the Civil War. Source (2015-02); http://www.lewis-clark.org/article/2564
Gum Arabic	WILSON, George D. Willis group	Nov 16	This is part of a list of medical items Wilson acquired in Santa Fe. It is followed by the ratio of "1/8". NOTE: Botanical.com states, "It is employed as a soothing agent in inflammatory conditions of the respiratory, digestive and urinary tract and is useful in diarrhoea and dysentery. It exerts a soothing influence upon all the surfaces with which it comes in contact." It was also used as a compounding agent for mixing drugs together and especially used in cough syrups.
Lobelia, Tincture of	WILLIS Willis group	Dec 08	Near Taos (NM); Lt Willis related that, "Brother William Coleman was seized with an unnatural appetite, and ate to excess ... Dr. Rust gave him a little tincture of lobelia, the only medicine in camp,"
Oxalic Acid	WILSON Willis group	Nov 16	This is part of a list of medical items Wilson acquired in Santa Fe. Oxalic acid is a chemical reducing agent for compounding medicines. Can also be used as a mordant (color setter chemical) in fabric dying process.
Prussian Blue	WILSON Willis group	Nov 16	This is part of a list of medical items Wilson acquired in Santa Fe. It is followed by the amount of "1.2 to 1 quart." NOTE: Prussian Blue is an inorganic, insoluble dark, bright blue pigment. It was widely used for laundry bluing and, but apparently had medical uses too. The online copy of the 15th edition (1885) of "The United States Dispensatory" (p 1171-1172) stated, "Prussian blue is deemed a tonic, febrifuge [fever reducing agent], and alterative, but is at present very rarely used. It is sometimes employed as an application to ill-conditioned ulcers, mixed with simple ointment in the proportion of a drachm to the ounce."

Mormon Battalion Foods List

<u>Medical items</u>		2 of 2	
Item	Journal	Date	Location; Quote, Notes and details
Quinine	CORAY	Sept 09	Pawnee Forks (KS); "I had succeeded in breaking the ague by this time by means of quinine & held myself present for duty." NOTE: Young Susan Magoffin, riding a few weeks ahead of the Battalion, states that she used Dr. John Sappington's quinine pills, first introduced in 1832. Interestingly, Sappington lived on the Missouri River at Arrow Rock Missouri and was a renowned physician by 1846. Did Sanderson and Sappington ever meet? It is reported that there is no evidence of it in Sappington's papers.
	HANCOCK	Nov 05	"The quinine and the calomel, For to the Doct we must go..." NOTE: This is from one of Hancock's poems. However, it reveals that Dr Sanderson also used quinine – the only effective anti-malarial drug of the time and one not officially approved by Army Medical corps.
	BORROWMAN	Apr 09, 1847	San Diego; "Felt some symptoms of ague and took five grains of quinine ..." NOTE: Dr. Sanderson had been assigned to Los Angeles. Dr. John Griffin had been sent to San Diego for the troops and sailors stationed there. Was Dr. Griffin also providing quinine?
Silver, rentia	SMITH, Azariah	Nov 17	Cooke's Pass; "I got some more eye water off the doctor made of the rentia of silver" NOTE: Apparently a silver nitrate or colloidal suspension used to fight eye irritations and infections. "Rentia" (latin = "decency") may be a misspelling of "retina" (light sensing layer at the back of the eye). The earliest text we have located describing use of a silver nitrate solution dates to 1839. See Google Books for; "The Medical Examiner: A Monthly Record of Medical Science, Volume 2; Lindsay & Blakiston, publishers; 1839. The specific article is, "Velpéau's Clinical Lectures on Ophthalmia, No. V. <i>"On the treatment of Inflammation of the Conjunctiva. Treatment of Conjunctivitis"</i> , pages 655-660 (reproduced from London Medical Gazette).
Whiskey, "Bitters"	LEE	Oct 10	Santa Fe; "I paid 1.00 for a pint of whiskey to put biters [bitters] in." NOTE: This may have been a quinine concoction to ward off malaria fevers. Suggests that John D. Lee didn't use Dr. Sappington's Pills but resorted to 'home remedies' he was more comfortable with.

<u>Logistics</u>		1 of 1
Wagon Capacity	Citing a reference in "Wagons on the Santa Fe Trail 1822-1880" by Mark Gardner, we learn that military freight wagons of the 1850-51 freighting season "averaged 5,235 pounds per wagon." Consider then, that 500 men, eating their full 18-oz flour ration per day would completely empty a 2-1/2-ton wagon in 9 days. That is another reason why units were put on reduced rations when on the march. Use Elmer's entry below to calculate the ounces of flour available per day to the remaining men of Co C on their way from Santa Fe to California. Article at: http://www.nps.gov/safe/historyculture/upload/Wagons-on-the-SFT_combined.pdf	
Distribution	ELMER: "October 18 – Preparing for a march today. Drawing our provisions, Company C, the company to which I belong as first seargent, drew 4700 pound of flour, 1777 pounds of pork, 679 pounds of sugar and 284 pounds of coffee; this is all we drew, but the beef we drove along." NOTE: This is just shy of 7,500 lbs and would load two wagons with 1.8 tons each (3,700 lbs). Consider though that the 4,700 pounds were intended just for Co C.	
Foraging	Col. ALLEN turned a 'blind eye' to foraging going down the Missouri River to Leavenworth; Col. COOKE prohibited the men from appropriating food in Tucson. They had to pay for what they could get.	

Mormon Battalion Foods List

<u>Other Items</u>		1 of 1	
Item	Journal	Date	Location; Quote, Notes and details
Soap (rations)	SMITH, Albert	Aug 18	"Hurricane Point" Kansas; typically distributed once per week; Tucson - Cooke states they only had 20 days ration of soap when they left Santa Fe on Oct 19.
	WILLIAMS	Dec 16	Tucson; "[Susan Davis] gave Hyrum [Judd] a piece of yellow soap..." NOTE: This was to be used to overcome constipation, but gives a detail about the soap they had available.
Amole (<i>Spanish</i>)	Ricketts	Nov 05	Rio Grande valley; "Soap was scarce so they used a root called arinola..." NOTE: ' Amole ' is a generic Spanish term for a plant-derived soap; ... the local Native Americans also used the bulb for food. ... The bulb itself is also eaten; it is cooked in an old-style earthen oven for a good period (overnight, for instance), and becomes sweet and good for food. Like so many of the other plants known to the California natives, this plant was used also for medicinal purposes. ... Eating the bulb raw is bad, for the same chemicals that make it a good soap and fish poison (saponins) are present in the raw bulb." NOTE: Ricketts, p 78 does not cite her source for this claim. See the article at: http://www.fs.fed.us/wildflowers/plant-of-the-week/chlorogalum_pomeridianum.shtml
Pebbles	CORAY, Melissa	Nov 23	Ricketts relates (p 86); "When Melissa Coray died, her family found a small, round, smooth pebble, carefully wrapped in tissue, among her possessions. It was the stone she had carried at times in her mouth on her march with the Mormon Battalion. She told her grandchildren it seemed to help if they didn't think about how thirsty they were as the walked along." NOTE: Descendants occasionally display this pebble at functions.
Tobacco, chewing	WHITWORTH	Aug 15	Kaw River (KS); "...we gather around the fire and talk about almost everything, ... during which Smoking & chewing tobacco is not forgot."
Tobacco, cigar	STANDAGE	Dec 16	Tucson; "This wheate & a few boxes of cigars were all the publick property that were found..."
	BLISS	July 14, 1847	Los Angeles; "...encamped at Riota Ranch near an excelent Spring of water – this evening a Spanish Gent & Lady came to camp – had the privlidge of smoking the cigar of friendship with them." NOTE: This would be Southeast of Los Angeles - perhaps 12 miles or so.
Tobacco, pipe	WHITWORTH	Aug 15	Kaw River (KS); "...we gather around the fire and talk about almost everything, ... during which Smoking & chewing tobacco is not forgot."

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