The Crops and approaching Harvest.

Within the last ten days, we have seen and conversed with men from nearly every county in the Territory, who have unanimously confirmed the reports previously made by correspondents and others of the very flattering prospects of an abundant crop of wheat and other cereals the present season in most of these valleys, although, as a general thing, the harvest will be some later than usual, owing to the coldness and backwardness of the spring.

The growing wheat in the northern counties, including Cache, Malad, Box Elder, Weber and Davis, is reported as looking remarkably well, never more promising and, if the necessary precaution to prevent smut was generally taken, and no unforeseen occurrence transpiring to retard its growth or prevent its maturity, the husbandman will, in all probability, be abundantly rewarded for his labors in cultivating that staple crop of these mountain valleys. Great Salt Lake county, which has not been ranked of late among the best wheat-growing counties, although its products have far exceeded that of any other in the Great Basin, will not fall behind this year in the amount of grain raised on its soil, judging from present prospects. The yield per acre may not be as great as in by-gone years, but there was a large breadth sown and the aggregate may reasonably be expected to exceed that of the last or any previous season. In proprotion to the number of inhabitants, there may not be as much wheat, corn, rye, oats and barley growing in this county, as there was before the United States sent hither a division of its then small army, apparently as one of the initiatory steps to the overthrow of its national greatness if not ultimately of its existence, but if carefully harvested, and not thereafter wasted or foolishly disposed of, there will unquestionably be an abundance for the sustenance of the people now dwelling in the county and for those of the incoming immigration, who may locate within its borders.

In Tooele and Shambip counties crops of all kinds are represented as being very flourishing, also in Utah, Juab and Sanpete. In Millard and the Southern counties not as celebrated for wheat as for some other crops, the prospects of a good yield are said to be as good, if not better than ever before.

There appears to be no want of water in any of the valleys, this year, for irrigating purposes, still the quantity and quality of wheat and other crops may be materially effected by contingencies arising hereafter, before maturity. Unquestionably there are many farmers who have not yet been made to believe and understand that there is no necessity for producing smut, and their fields of wheat, although now looking well, may not yield more than one half as much as they would if the seed had been properly prepared before sowing in order to prevent the grain from being smutty, as has been the case with much of that raised in this part of the Territory within the last few years.

In Davis county the harvesting of the rye and barley crops has been commenced. Some fields of wheat there as well as in this county will soon be ripe enough to cut, and in view of the greatness of the harvest and the scarcity of laborers, it will be well for all extensive grain growers in the Territory to commence cutting and securing their grain as soon as it is ready for the reaper.

The sooner all kinds of grain is harvested after it comes to maturity, the better, as it will decrease both in weight and quality in proportion to the length of time it is left standing in the field after it is fully ripe. By experiments that have been made, it has been ascertained beyond all controversy, that all cereals are heavier and of better quality, if cut when quite green, and before being sufficiently ripened to be thrashed without standing for a short season in the field to undergo a drying process, after has been reaped.

Whatever the result of the extensive grain-growing operations, this season, proves to be, that is, whether the crops be heavy or light, it will be late in the season before all the wheat that has been sown will be ripe, and the frosts of autumn will doubtless be seen before that in high locations will be harvested.

WEIGHTS AND MEASURES

OF VARIOUS FARM PRODUCTS AND OTHER THINGS IN VARIOUS COUNTRIES.

In England and America grain is generally rated by the bushel, though it is not the same measure; for here we use the Winchester bushel, which contains 2,150 42-100 cubic inches. There, since 1826, the legal measure is called the imperial bushel, which contains 2,218 cubic inches; so that 32 of their bushels are about equal to 33 of ours.

The following are the commercial weights of a bushel of different articles, viz: Wheat, beans, potatoes and cloverseed, 60 pounds. Corn, rye, flax seed and onions, 56 pounds. Corn on the cob weighs 70 pounds. Buckwheat, 52; barley, 48; hemp seed, 44; timothy seed, 45; castor beans, 46; oats, 35; bran, 20; blue grass seed, 14; salt, 50, according to one account, but Onondaga salt is 56, (the real weight of coarse salt is 85 pounds to the bushel); dried apples, 24; dried peaches, 33; according to a table lately published in numerous papers, but according to our experience both are wrong. We have seen thousands of bushels sold at 22 pounds to the bushel, which will measure about three pecks.

Heaping Measures.—Potatoes, turnips, and esculent roots, apples and other fruits, meal and bran, and in some States oats, are sold by heaping measure, which contains 2,815 cubic inches. The size of a Winchester bushel measure, is a circular ring with straight sides 8 inches high and 18½ in diameter. A box 12 inches square, with sides 7.46.66 inches high, will hold half a bushel.

Comparative Grain Measures.—Besides the difference between the Winchester and imperial and heaped bushels, before stated, there are a dozen or more local bushels. For instance, at Abington, England, 9 gallons; at Penrith, 16; at Carlilse, 24; at Chester; 32, etc. In France, the *setier* is as 4,427 to 1,000 compared with the imperial bushel; that is 4427-1000 bushels. In Holland, the *mudde* is as 3,157. In Prussia, the *scheffel*, 1,479.—In Poland, the *korsee* 1,451. In Spain, the *fanega*, 1,599; that is, 99-1000 over a bushel and a half.

Barrel Measures.—Rice, 600 pounds; flour, 196 pounds; powder, 25 pounds; cider and other liquids, 30 gallons; corn, 5 bushels, shelled. By this latter measure crops are estimated, and corn bought and sold throughout most of the Southern and Western States. At New Orleans, a barrel of corn is a barrel full of ears. In some parts of the West it is common to count a hundred ears for a bushel.

Ton Weights and Tun Measure.—A ton of hay or any coarse bulky article usually sold by that measure, is twenty gross hundred; that is, 2,240 pounds; though in many places that ridiculous old fashion is being done away *and 2,000 pounds only counted to a ton.*

A ton of timber, if round, consists of 40 cubic feet; if square, 54 feet. A tun of wine is 252 gallons.

A quarter of corn is the fourth of a ton, or eight imperial bushels. This is an English measure, not in use in this country, though very necessary to be known, so as to understand agricultural reports. So of several of the following weights and measures.

A Last of soap, ashes, herring, etc., 12 barrels; of corn, 10 quarters; of gunpowder, 24 barrels; of flax or feathers, 1700; of wool, 12 sacks.

A sack of wool is 22 stone; that is, 74 pounds to the stone, 308 pounds.

A boll of wool is the same weight.

A pack of wool is 17 stone 2 pounds—240 pounds, a pack load for a horse.

A Tod of wool is 2 stone, that is 28 pounds; 6½ tods 1 wey; and 2 weys a sack.

A Clove of wool is 7 pounds, or half a stone. Recollect, a stone is 14 pounds, when talking of wool, feathers, etc., but when applied to beef, fish and other meats, it is only 8 pounds.

A truss of hay, new, 60 pounds; old, 56; of straw, 40 pounds. A load, 36 trusses.

A Firkin of butter is 56 pounds; a tub, 84.

A Scotch pint contains 105 cubic inches, and is equal to 4 English pints.

A Farlot of wheat is 21½ Scotch pints.

Troy weight and Avoirdupois weight.—One hundred and forty-four pounds avoirdupois are equal to 175 pounds Troy—175 ounces Troy are equal to 192 ounces avoirdupois. All precious metals are bought and sold by Troy weight.

The Kilogramme of France is 1000 grammes, and equal to 2 pounds 2 ounces, 4 grains avoirdupois.

A Chaldron of coal is 58⅜ cubic feet, generally estimated 36 bushels. A bushel of anthracite coal weighs 80 pounds, which makes the weight of a chaldron 2880.

Weights of a cubic foot.—Of sand or loose earth, 95 pounds, compact soil, 124; a strong or clayey soil, 127; pure clay, 135; mixture of stones and clay, 160; masonry of stone, 205; brick, 125; cast iron, 450; steel, 489; copper, 486; lead, 709; silver, 654: gold, 1203; platina, 1218; glass, 180; water, 62; tallow, 59; cork, 15; oak timber, 73; mahogany, 66; air 0,0753. In the above, fractions are discarded.

A Bale of cotton, in Egypt, is 90 pounds; in America, a commercial bale is 400 pounds, but is put up in different States varying from 280 to 720 pounds. Sea Island cotton is put up in sacks of 300 pounds.

A Bale of hay is 300 pounds.

A Cord of wood is 128 solid feet, usually put up 8 feet long, 4 feet wide, and 4 feet high. In France, a cord of wood is 576 feet.

A Stack of wood is 108 solid feet; 12 feet long, 3 high, and 3 wide. A Skid of wood is a round bundle of small sticks, 4 feet long, girting for a one-notch, 16 inches; two-notch, 23 inches; three-notch, 28 inches; four-notch, 33 inches; five-notch, 38 inches. A Billet of wood is similar to a skid, being 3 feet long, 7, 10 and 14 inches round. They are sold by the score or hundred. A score is 20 in number.

Fagots are bundles of brush 3 feet long and 2 feet round. A load of fagots is 50 such bundles. A quintal of wood is 100 pounds. All fuel should be sold by the pound.

A Perch of Stone is 25 cubic feet, piled, or 22 in the wall.

Lime and Sand to a perch of stone. Three pecks of lime, and two-thirds of a one-horse cart load of sand.

Weight of Lime.—A bushel of limestone weighs 142 pounds; after it is burned, if weighed directly from the kiln, 75 pounds; showing that 67 pounds of carbonic acid and water have been driven off by fire. This bushel of lime will absorb 20 pounds of water, gradually applied during several days, and will then be in a state of dry powder, weighing 93 pounds; showing that 18 pounds of water have been converted into a solid, dry substance.

To measure a Ton of Hay.—One hundred cubic feet of hay, in a solid mow or stack, will weigh a ton.

To Measure Cattle by Compute Weight.—Ascertain the girth back of the shoulders, and the length along the back, from the square of the buttock, to a point even with the point of the shoulder blade; say the girth is 6 feet 4 inches, and the length 5 feet 3 inches, which, multiplied together, gives 31 feet. Multiply this by 23, the number of pounds allowed to the foot, between 5 and 7 feet girth, and the result is 713 pounds, for the number of pounds of beef in the four quarters. Girths, from 7 to 9 feet, allow 31 pounds to the foot. Cattle must be fat and square built to hold out weight.

To Measure Grain in Bins, multiply the length and width together, and that product by the height in cubic inches, and divide by 2,150, and you have the number of bushels.

To Measure Corn in the Ear, find the cubic inches as above, and divide by 2,815, the cubic inches in a heaped bushel, and take two-thirds of the quotient for the number of bushels of shelled corn. This is upon the rule of giving three heaping half bushels of ears to make a bushel of grain. Some falls short and some overruns this measure.

Board Measure.—Boards are sold by face measure. Multiply the width in inches of any number of pieces of equal length, by the inches of the length. Divide by 144, and the quotient is the number of feet, for any thickness under an inch. Every fourth inch increase of thickness adds a fourth to the number of feet in the face measure.

Land Measure.—Every farmer should have a rod measure, a light stiff pole, just 16 1-2 feet long, for measuring land. By a little practice he can learn to step just a rod at five steps, which will answer very well for ordinary farm work. Ascertain the number of rods in width and length of any lot you wish to measure, and multiply one into the other and divide by 160, and you have the number of acres, as 160 square rods make a square acre If you wish to lay off one acre square, measure 13 rods upon each side. This lacks one rod of being full measure.

Government Land Measure.—A township is 6 miles square, and contains 36 sections, 23,040 acres. A section, one mile square, 640 acres. A quarter section, half a mile square, 160 acres. As this is 166 rods square, a strip one rod wide, or every rod in width, is an acre. A half quarter section is a half mile long, north and south, almost universally, and a fourth of mile wide, 80 acres. A quarter-quarter section is one-fourth of a mile square, 40 acres, and is the smallest sized tract, except fractions, ever sold by the government. The price is $1 25 an acre.

Measure of a Mile.—While engaged in the compilation of this valuable article, we received the following table from a friend in Maine, who, in remarking upon the indisposition of some persons to take an agricultural paper, "because," they say, "it pertains to the system of book farming," says some object to the "Plow" because "they can't afford it." We are sorry for their poverty, but more so for their ignorance and stupid determination to remain in it. This single article, which, if less than the fiftieth part of what we give them for fifty cents, would cost any one of them *fifty times* the price of the "Plow," *in labor*, to glean this information from fifty dollars' worth of books. Our measure of distance is by the standard English mile, which is 5280 feet in length, or 1760 yards, or 320 rods.

An English geographical mile is equal to 2050 yards.

Ancient Scottish mile	1	mile English and	224	yards.
Ancient Irish mile,	1	"	480	"
German short mile,	3	"	1679	"
German long mile,	5	"	1326	"
Hanoverian mile,	6	"	999	"
Tuscan mile,	1	"	48	"
Russian mile,	5	"	1197	"
Danish mile	4	"	1204	"
Dantzic mile	4	"	1435	"
Hungarian mile,	5	"	313	"
Swiss mile,	5	"	353	"
Swedish mile,	6	"	1140	"
Arabian mile,	1	"	380	"

Modern Roman mile 132 yards less than English.

Length of Leagues.

French posting league	2	miles Eng'h and	743	yds.
French league	3			
English league,	3			
Spanish judicial league,	2	"	1115	"
Portugal league	3	"	1480	"
Flanders league,	3	"	1584	"
Spanish common do.,	5	"	378	"

Length of Other Measures.

Persian Parasang	3	miles English and	806	yds.
Russian Werst,	6	"	593	"
Turkish Bein,	1	"	68	"

A German geographical mile is equal to 4 English miles, or 8100 yards.

SCRIPTURE MEASURES.

"A Sabbath Day's Journey" is 1,155 yards—about two-thirds of a mile. A Day's journey is 38½ miles. A Reed is 10 feet 11½ inches. A Palm is 3 inches. A Fathom is 6 feet. A Greek Foot is 12½ inches. A Hebrew Foot is 1.212-1000 English foot. A Cubit is 2 feet. A Great Cubit is 11 feet. An Egyptian Cubit is 21.888-1000 inches. A Span is 10.944.1000 inches.

As these superfices of all our State and counties are expressed in square miles, it should be borne in mind that the contents of a mile is 640 acres.

Number of Square Yards in an Acre—English, 4840; Scotch, 6150; Irish, 7840; Hamburg, 11.545; Amsterdam, 9722; Dantzic, 6650; France, (hectare,) 17 960; Prussia, (morgen,) 3053.

Manure Measure.—This is generally estimated by the load, which is just about as definite as the phrase "about as big as a piece of chalk." It ought to be measured by the cubic yard or cord. A cubic yard is 27 cubic feet, each of which contains 1,728 cubic inches. A cubic cord is 128 cubic feet. As the most of farmers have an idea in their minds of the size of a pile of wood containing a cord, they would readily compare that with the quantity of manure, if stated in cords. Every cart or wagon box, before it leaves the maker's shop, ought to have the cubic feet and inches it will contain, indelibly marked upon it. This would enable the owner, who has read *"The Plow,"* to calculate the amount of his load of grain, roots, earth, stone or manure.

Weight of Manure.—A solid foot of half rotted stable manure will weigh upon an average, 56 pounds. If it is coarse or dry, it will average 48 pounds to the foot. A load of manure, or 36 cubic feet, of first quality, will weigh 2,016 pounds; of second quality, 1,728 pounds. Weight to the acre.—Eight loads of first kind, weighing 16,128 pounds, will give 108 pounds to each square rod, and less than two and a half pounds to each square foot. Five loads will give 63 pounds to the rod. An acre containing 43,560 square feet, the calculation of pounds per foot, of any quantity per acre, is easily made.

The Measure of Mind may be considerably expanded in every youth who will carefully study these pages, which we have prepared with a measure of labor especially for the benefit of all who measure the capacity of our intellect to give useful information by our monthly chronicles of matters calculated, or at least intended, to elevate the minds of our readers immeasurably above those who are still groping in the darkness of willful ignorance, because of their misjudged economy in not patronizing agricultural papers and schools.—[The Plow.

A Wash for Out-Door Grapes.

Just at this time is the most critical period of the out-door grapevine. As soon as the fruit buds begin to expand and before blooming, the dark green bug is pursuing its destructive depredations. It nearly destroyed our crop of Concords and Dianas last season. When too late we applied with a sponge a wash prepared from whale oil soap, say about a quarter of a pound to a gallon of water What remained of the bug, instantly disappeared upon the application of the wash. About a week ago, it made its first appearance for the season, when we at once applied the wash and dislodged it. Those that fell to the ground were crushed, and those that remained on the vine *died from the effects of the wash.* We would recommend its use promptly, wherever this bug makes its appearance. Otherwise it soon inflicts serious damage upon the fruit bud, then deposits its eggs, which the wash may not destroy, and by the time the leaf becomes fully expanded, hundreds of brown worms about an eighth of an inch in length, from these eggs, are found preying upon the leaf, pretty much finishing the remaining portion of the crop left by the bug. Of course the application should be repeated once or twice, as there may be occasion.

We have found this wash effectully to expel the striped bug and other depredators from the melon vines.

This soap can be purchased at the agricultural stores, and at some of our best grocery stores. All druggists ought to keep it on hand.—[Germantown Telegraph.

Rhubarb Syrup.—The aperient qualities of green rhubarb, and its conduciveness to health, being now so well known, its usefulness does not admit of a doubt; but allow me to remark it is best used in the form of syrup, eaten with "plain bread," as are all cooked fruit, and not with pastry, especially by invalid persons who have bilious constitutions. Pastry is like strong drinks; it only serves to indulge the appetite, rather than to impart to it any real good, causing secretions in the stomach beyond their natural order. To make rhubarb syrup is simply to cut it into small pieces, simmer it over a slow fire one hour, with a very little water; or it may be baked in a jar, then strain it and add sugar to the palate. When it is young it is unnecessary to be peeled. If sweetened with the best of sugar (loaf is best,) it will, if preserved air tight, and set in a cool place, keep good for many months, and will be found to be pleasant and refreshing at all times and seasons. —[Gardener's Chronicle, London.