

RECORD OF UTAH'S GREAT SUGAR INDUSTRY

RECORD FOR 1903.

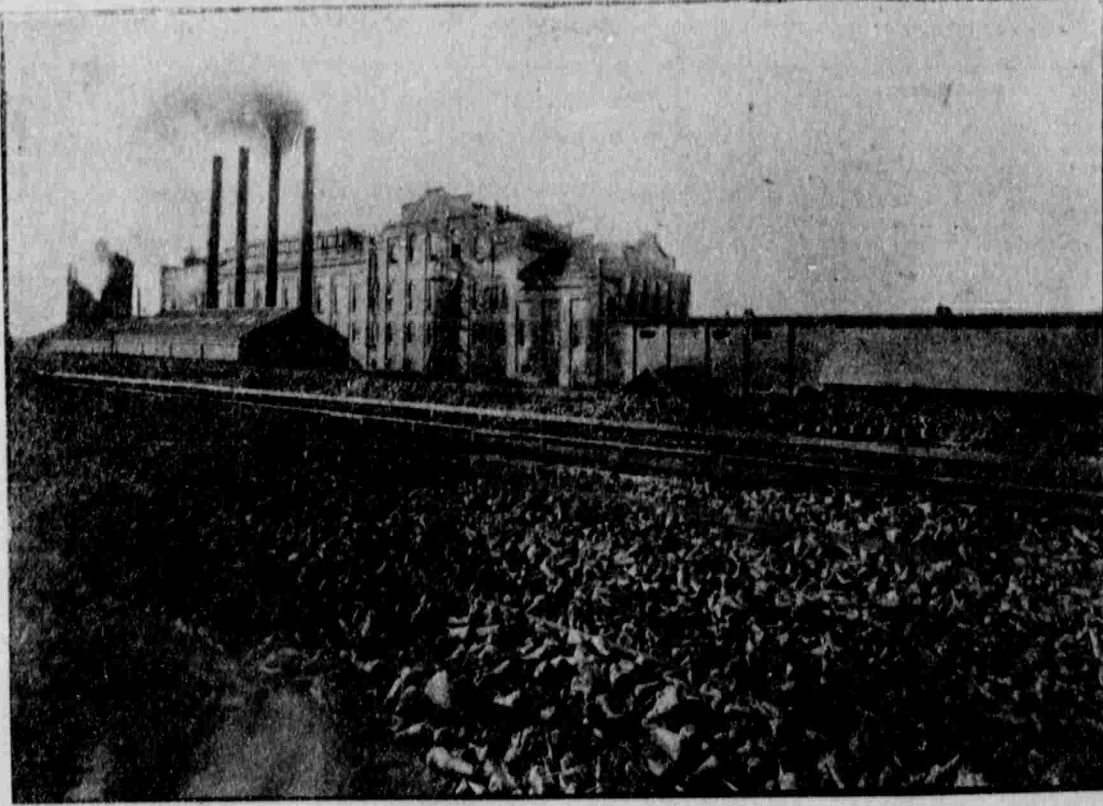
Lehi Factory	23,500,000 lbs.
Garland Factory	4,000,000 lbs.
Ogden Factory	10,000,000 lbs.
Logan Factory	10,000,000 lbs.
La Grande Factory	2,500,000 lbs.

TOTAL 50,000,000 lbs.

COMPUTED at 5 cents per pound, these figures mean that the income from the sugar industry in Utah this year amounts to two and a half million dollars. Since we began producing sugar in 1891, our total output has amounted to about 195,000,000 pounds, worth at 5 cents, \$9,750,000.

The leaps and bounds by which the production of sugar from beets has increased, has brought us face to face with the vital question as to where we are to find consumers for our great supply. "Markets! markets! markets!" is now the cry we hear ascending from the factories throughout Utah and Idaho, and the cry will be louder than ever next year. Utah, Idaho, Montana, and Wyoming, or those portions of them supplied by us, consume only 40,000,000 pounds of sugar annually. The Utah and Idaho factories will next year turn out not less than 80,000,000 pounds, which means that half the product must go to the east, where, not only must the freight be paid, but the market prices rule the year round much lower than in the intermountain region. This, too, without figuring on the immense amount of California sugar which overflows from its own markets into the more profitable ones hereabouts.

It thus becomes evident that the future of the sugar industry must depend largely upon economical operation, the utilization of by-products, and the taking advantage, (as The Utah Sugar company has done, in erecting a power plant) of all the opportunities that present themselves for increasing what may be called side earnings. This view of the case is expressed in the interview with Manager T. R. Cutler, given below.



NEW FACTORY OF THE UTAH SUGAR COMPANY AT GARLAND, UTAH.

The above interesting picture shows the new 600 ton plant of The Utah Sugar company at Garland, Boxelder Co., Utah, which has just been completed. The picture is an interesting one, inasmuch as it is taken from the top of the beet sheds, which lie in the foreground, the factory showing below the sheds. The elevation of the front part of the picture is due to the fact that the beet sheds are 17 feet high, all filled with beets, so that the person walking on the beets shown in the foreground, has under his feet an area amounting in weight to 16,500 tons. All were dumped in their places from cars run upon the elevated wagon and car tracks from the beet sheds, the rails being just visible through the beets. Adjoining the factory on the north is the warehouse where the sugar is stored as soon as it is turned out.

any except the surplus waters, such waters will be of the greatest benefit to the land, as only dry farming has been practiced up to this time, and the dry seasons of past years have often been disastrous.

The conservation of the waters of the Bear river is a problem yet to be solved, and the Sugar company has been exploring and surveying the whole of this year with a view to eventually turning its attention to that important measure. If an average could be obtained of the maximum and minimum flow of Bear river even in the driest year, it would be sufficient to irrigate all the lands in Boxelder county that are now not otherwise irrigated, and also run the power plant to its utmost capacity.

While the company realizes the importance of the conservation of the Bear river waters, it realizes also that such systems are very expensive in their construction, and is therefore cautious about using money for this purpose, inasmuch as the government has appropriated large sums of money to be used in that direction.

The future of the Bear river valley system, and its lands being some of the most fertile in the world, there is no doubt in the minds of those best posted, that the problems connected with the irrigation system will be solved in the near future.

AMALGAMATED SUGAR CO.

The operations of the Amalgamated Sugar company for the year 1903 have been very satisfactory to the management. The year's output of sugar from the three factories situated at Ogden, Logan and La Grande will amount to about 22,500,000 pounds of sugar. The total acreage planted for the three factories was 8,800 acres of beets, which produced 97,000 tons of beets. The operating expenses incurred at the three factories will be \$130,000, at each factory about 200 employees have been engaged in all the departments.

The Ogden sugar factory commenced its campaign Sept. 4, 1903, and will close the run Jan. 1, 1904. There were 4,000 acres of beets planted for

a heavy distribution of cash, but the factory has consumed about two thousand five hundred tons of lime rock, which have been hauled by wagon from the Providence canyon. All of which shows at the warehouse—100,000 bags—10,000,000 pounds—of beautiful granulated sugar.

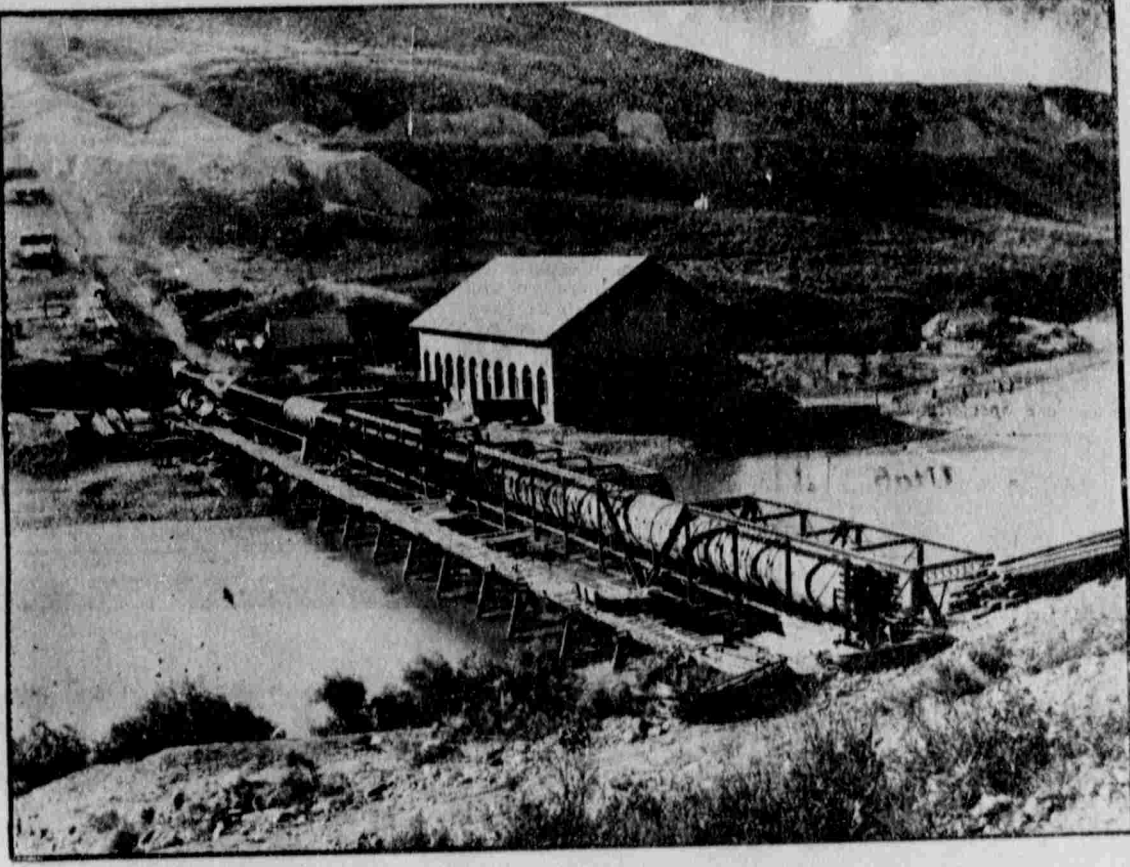
The benefits, too, extend to the cattle and sheep interests; for already there are 1,500 steers, and about 2,000 sheep at the factory being fattened on the pulp which meets the sugar plant about \$10,000, even at a nominal price per ton.

THE LEWISTON FACTORY.

The Lewiston factory will not be built the coming year, but it will be erected soon after and will prove one of the most profitable of all the sugar plants in the west.

SUP. PINGREE'S REPORT.

The Ogden sugar factory is now running out its sixth year crop of sugar beets. It will be about Jan. 16, 1904, before the beets of this season will be worked up. At first this factory received beets from Davis, Weber, Morgan, Boxelder and Cache counties, but the last three years we have received them north of Farmington and south of Brigham and a few from Morgan county. In this district or tract of land there are 16 canning factories which work up immense quantities of tomatoes, peas and fruit of different kinds, employing immense numbers of boys, girls, men and women; 12 of these canning factories have been built since the sugar factory was built, but notwithstanding these conditions the Ogden factory is making the largest run of beets it has had since its existence; the farmers take their early land and located in places where, during the winter, the early and late frosts of air keep off the early and late frosts to raise their tomatoes, and the later land and where the early and late frosts appear, to raise their sugar beets, of course there are exceptions to this rule, but they are working to it. Notwithstanding all these factors and the immense shipment of vegetables and produce of different kinds on all four railroads leaving Ogden, north, east, south and west, even this year we



THE UTAH SUGAR COMPANY'S POWER PLANT.

This picture shows the power plant of The Utah Sugar Co., constructed at the mouth of the Bear River canyon, about three miles from Collation. The building is located on the east side of the Bear river, and the picture shows the pipe line referred to below. In the course of construction, the powerhouse is so built that eventually it will contain machinery for 4,000 horsepower electrical energy. At present only two machines of 750 K. W. energy are installed. These machines will generate 2,400 horsepower at their maximum, and this power is now being furnished to the Utah Light & Power company, the pole line being built by the Utah Sugar company, a distance of 45 miles to Ogden, connecting there with the Utah Light & Power company's line to Salt Lake City.

About Dec. 20, 1903, will close the thirteenth campaign of the Utah Sugar company's factory, located at Lehi; the central plant, with the three auxiliary stations have run the entire season very smoothly without any serious break downs.

The number of tons of beets sliced at the main plant and the three cutting stations is as follows, which is the largest tonnage ever worked in one campaign since the factory was erected:

Lehi 35,203 tons

Springville 38,184 tons

Bingham Junction 13,203 tons

Provo 13,229 tons

96,910 tons

The sugar manufactured at this one factory this year is more than the consumption of the whole state of Utah, the amount sacked being about 25,000,000 pounds, and of the very finest quality.

While the factory with its sub-stations, has sliced as high as 4.75 tons and sacked 3.25 bales of fine granulated sugar in one day's operation of 24 hours, the average tons of beets sliced, and sugar sacked were 1,020 and 3.421 respectively.

The Utah Sugar company has just decided to install another pumping station at Lehi, Utah county, Utah, from which the juice of the beets will be pumped to the central plant at Lehi, through a four-inch pipe, and will be operated exactly the same as the other auxiliary stations, providing the formers of that locality will raise each season for five consecutive years, 4,000

acre of beets; will furnish sufficient water to operate the plant, will secure rights of way for railroad cut-in and wagon roads and make other minor guarantees.

THE GARLAND PLANT.

The Utah Sugar company's factory just completed at Garland, Boxelder county, Utah, is one of the most modern and up-to-date plants now in operation.

The buildings consist of structural steel, brick and cement, making them absolutely fire-proof, and are a most magnificent sight to behold. This factory commenced operations Wednesday, Dec. 9, and the results obtained thus far are very satisfactory and encouraging. The mill under the present conditions, has a capacity for slicing 600 tons of beets each 24 hours, and manufacturing a corresponding amount of white granulated sugar.

For the first campaign of this factory something like 17,000 tons of beets were harvested in the Bear River valley, and the contents of the beets polarize very high; notwithstanding some of them have been in the bins for 60 days, they are keeping splendidly, with but very little deterioration. When the contract was let for the erection of this plant it was fully contemplated that the factory would be ready for operation not later than Oct. 15, but for various reasons this was found impossible. First, it was impossible for the railroad people to complete the Malad valley branch until some time in June, which of course made it very late for the arrival of the machinery. Second, on account of the great number of manufacturing enterprises and buildings being erected all over the United States, expert labor was very hard to get and the com-

pany was obliged to get along with insufficient help of this class, making up the requisite number of hands from the best material obtainable. Third, the beet industry in Utah has been making very rapid strides ever since the first crop was planted, and by way of comparison we give below the number of acres planted and tons produced for the Lehi factory each season, since the introduction of the industry into the state:

SUPERINTENDENT AUSTIN'S REPORT.

George Austin, agricultural superintendent of the Utah Sugar company, furnishes the following information. The beet industry in Utah has been making very rapid strides ever since the first crop was planted, and by way of comparison we give below the number of acres planted and tons produced for the Lehi factory each season, since the introduction of the industry into the state:

Years.	Acres Planted.	Tons of Beets.
1891	1,500	8,369
1892	1,500	9,516
1893	2,750	29,849
1894	2,500	72,621
1895	3,500	43,168
1896	3,200	43,159
1897	3,000	15,569
1898	3,000	47,111
1899	3,400	52,675
1900	3,500	50,123
1901	7,000	78,322
1902	9,000	85,303
1903	8,125	96,910

During the season of 1897, the very low tonnage was due to a blight on the beets that year, which we never previously experienced, nor have we had any repetition since.

For the season just past, we contracted through the Lehi factory, with 1,885 farmers, which is an average per contractor of a fraction less than five acres, and taking the entire yield, it gives us an average tonnage of a little less than 12 tons; the farmers received \$1.75 per ton for the beets delivered into the sheds of the company with freight allowances in localities where beets were delivered by rail.

Since the farmers have become acquainted with the methods of raising sugar beets they go into the business scientifically, and it is very commendable to note their excellent methods and the great pride they take in raising the crop.

Directing a little from the subject, it may not be amiss to state that Lehi is almost locked upon as the parent of the beet industry, as it was the first locality in America to raise beets successfully under the system of irrigation. The farmers also have done so splendidly, and obtained so thoroughly the required knowledge in this line, that their services are much sought after, and today, there are experts from the vicinities of the Lehi plant, in almost every locality where beets are being raised.

This is the first season that the Utah Sugar company has gone into the beet industry extensively in the Bear River valley. Last season by way of experiment about 1,000 acres were planted and shipped to the Lehi factory.

The digging season has just closed and we have harvested in this valley something like 2,200 acres, which gave us about 17,000 tons. The beets were of a very high quality, polarizing on the average of 16.8 with 84 per cent purity, and at the late irrigation congress, held at Ogden, the beets from this district were awarded the first prize, and there were on exhibition at this time samples of beets from nearly every locality in the west, where the beet industry is established.

To realize the great facilities this place possesses as a farming locality, a person must visit the valley and observe the beautiful rich soils and enjoy its beneficial climate. Since the introduction of the beet industry into the valley, a great many families have moved in and with but few exceptions are well satisfied with their new possessions.

The most serious question we have yet to overcome in the raising of beets in the Bear River valley, is an adequate amount of labor, during the growing and harvesting seasons. The beet industry in Utah has been making very rapid strides ever since the first crop was planted, and by way of comparison we give below the number of acres planted and tons produced for the Lehi factory each season, since the introduction of the industry into the state:

One reason that the tonnage is somewhat light, taking the general average of the season, is that a mistake was made in planting beets in lands that had previously produced grain, all the way from five to 12 crops, consecutively, without any fertilizing, and of course this reduced the tonnage to a point or a great number of acres, to where the crop was unprofitable to the farmers. In the future this will be avoided, as there are hundreds of acres of alfalfa already plowed up, and the land is being put in good condition preparatory to the planting of the next crop. We have demonstrated that alfalfa will produce excellent tonnage where sufficient water can be had for irrigation purposes, and the content of sugar of the sugar are of a very fair quality.

BET SEED INDUSTRY.

We have harvested this season in Lehi, about 25,000 pounds of beet seed and something like 40,000 pounds in the Bear River valley, making in all 650 sacks of 100 pounds each. We have also selected both in Utah county and in Bear River valley, a great many tons of high quality beets, to be planted next spring as "mother beets," and as this seed has proven to be equal to any of the foreign seeds, it is our intention to go into this business more extensively.

The refuse or pulp from the beets, is also becoming quite an industry of itself, and were it not that we always give the best contractor the privilege of buying this pulp first, we could readily dispose of it all. This pulp is very fine feed both for cattle and sheep, as a by-product, and cattle will fatten easily on about 100 pounds with 15 pounds of hay per head, daily, the same amount being sufficient for eight head of sheep.

The outlook for the coming season is very encouraging. We are in receipt of a great many letters from farmers in the various localities asking to increase their acreage, and with the installation of another pumping station at Lehi, Utah county, where the farmers are promising to raise for five consecutive years, each season 4,000 acres, there is no question that ample beets will be grown to run the Lehi factory at full capacity for a good long campaign.

Applications are also coming in for more acreage in Bear River valley and we estimate at this time that for next season we will have at least 4,000 acres contracted for the Garland factory.

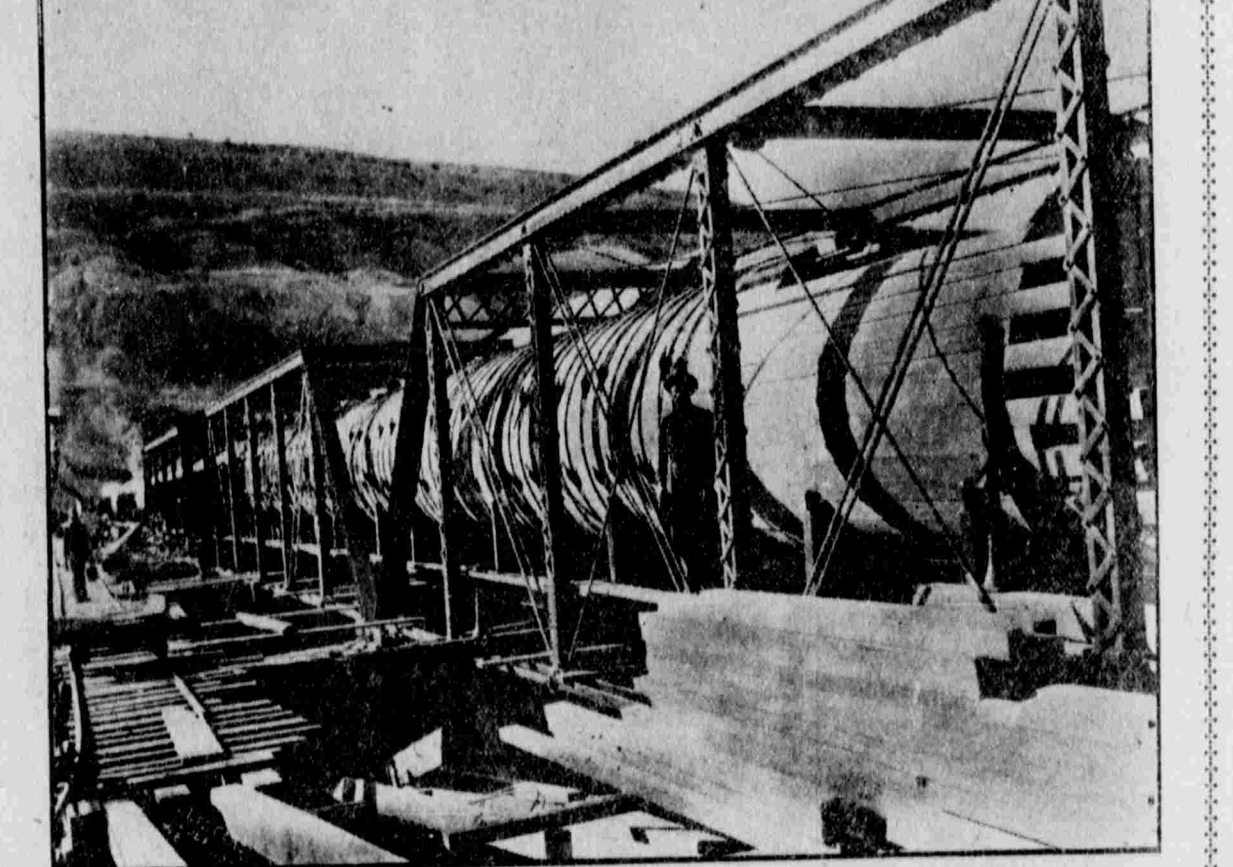
MANAGER CUTLER'S VIEWS.

Summing up the question of the beet sugar industry in these intermountain states and the possibilities of its extension, I will say: The sugar and sugar beet industry in Utah in 1902 was upwards of 2,500,000 tons, and the production was as follows:

Beet	Tons.
Utah	136,453
Louisiana	200,000
Porto Rico	75,000
Hawaii	375,000

Total 686,453 tons.

Leaving about 1,500,000 tons to be imported from Java, Germany, and other parts of the world. Prices have steadily decreased, and when it is remembered



PIPE CONNECTING THE CANALS.

This cut illustrates the siphon pipe connecting the canals on the east and west sides of the Bear river. This pipe is made of red wood and is 8 feet in diameter, the timber being 3 1/2 inches thick. This pipe line is constructed so that if the water supply from the east side canal should ever be interrupted, the power plant can be operated by bringing water across from the west side, the elevation of the canals on both sides being identical. The pipe is carried across the river on a steel bridge with concrete abutments. The bridge and the pipe form a magnificent piece of engineering work, and the cost was about \$50,000.

that Lehi alone will produce this year more sugar than the whole consumption of the State of Utah, the question resolves itself into a problem of economics. To be able to compete with prices at the point of distribution, a factory must be supplied with a maximum tonnage of beets of good quality at a reasonable price. It should have its by-products and above all, it should be economically managed. This can only be done by operating on a large scale, as it is conceded that small factories cannot compete, even under the best of conditions, with those of larger capacity.

Secy. Wilson is quite optimistic concerning our rapidly developing beet sugar industry to which he is lending every effort possible. He says: "The beet sugar industry is developing satisfactorily. In 1906 29,220 tons were made; one year ago 220,000 tons were made. Careful estimates put the crop now being worked up at 260,000 tons. This is a more rapid development than has taken place in sugar making with new conditions in any other country. The future of the crop depends upon the adoption of economic methods in field and factory."

The growing of seed in the United States of a superior quality is assured, which will result in much richer beets and a better yield than from imported seed that is never first-class. Heavier tonnage per acre will come from better farming, and greater economy from the intelligent disposition of the by-products. The industry is now well established.

THOMAS R. CUTLER.

THE UTAH SUGAR CO'S POWER PLANT.

One of the most modern power plants that has been built in the west, is that of the Utah Sugar company, situated at the mouth of the Bear River canyon, the powerhouse having been constructed by the Utah Sugar company, whereby that firm has been spared to give efficiency of service.

The Utah Sugar company has been doing some heavy work the past two years to improve the conditions of its canal system, and it is now distributing water on the west side of Bear river to 40,000 acres of land, and has made arrangements with the Hammond Construction company, whereby that firm is constructing and will operate a canal to irrigate the lands on the east side, the intention being to reach Honeyville in time for the next irrigation season, and while the Sugar company is not in a position to contract with the people on the east side for

the Ogden factory, which produced 42,000 tons of beets. It is estimated that there will be an output of 10,000,000 pounds of sugar. The Ogden factory employs 200 men during the campaign season, and the annual expenses for operating the factory will amount to \$65,000.

AT LOGAN.

The Logan factory commenced its run for this year on Sept. 17, and expects to complete it by Jan. 1, 1904. The beet growers planted 10,000 acres of beets for Logan, and received 42,000 tons of beets from that acreage. The expectation is that 10,000,000 pounds of sugar will be produced at that factory, whose operating expenses will amount to \$65,000. The same number of men were employed at that factory as at Ogden.

FALLING OFF AT LA GRANDE.

The La Grande, Ore., factory made contracts for 1,000 acres of beets which produced 12,000 tons. The year's output of sugar at the factory was 2,500,000 pounds. There were 200 men employed at the factory this year. The operating expenses were \$20,000, and the season's run commenced Sept. 30, and ended Nov. 4.

It is estimated that the three factories will have about 50,000 tons of beet pulp which is sold for 50 cents per ton, and this year every ton of it has been purchased by the beet growers, who have learned to appreciate its value in the fattening of stock.

At all the factories \$1.50 per ton has been paid for beets. The raising of sugar beets has become one of the leading agricultural industries of Utah and is gradually improving. A good price is paid for the beets and the agriculturalists are finding that it is one of the most profitable crops they can raise. The management of the Amalgamated Sugar company say the beet raisers have done well this year, and that the outlook for the year of 1904 is very bright.

CACHE COUNTY BENEFITS.

The third year's run of the Logan sugar factory will soon pass into history. By Jan. 1, 1904, the 15,000 tons of beets still on the ground and in the company's sheds, will have been cut into pulp and the plant will close what has been its most successful season. What all this means to Cache Valley can only be realized by a little figuring. For instance, it means that the Amalgamated has paid our farmers about \$185,000 for beets. It means that about \$40,000 has been paid for labor in manufacturing. But the most important fact is, that 41,000 tons of beets were produced this year in 1,800 acres less land than produced 37,000 tons last year, which indicates that better methods are employed by the farmers whose lands are yielding greater returns. Not only farmers and laborers share in the general benefits of such

have our biggest run; the farmers have learned to raise beets by getting down to better farming and fertilizing their land, planting and working their beets early, and they find then a crop that can be depended upon; the heaviest labor is early in the spring before the work has come on, and late in the fall when the harvest is over; no other factory in the state has such conditions to contend with as this factory has. The farmers of Weber county have been their crops and care for them through the summer; no need of any man, woman or boy or girl being idle, for the work has come on, and late in the fall when the harvest is over; no other factory in the state has such conditions to contend with as this factory has.

JOB PINGREE.

Agricultural Superintendent Amalgamated Sugar Co.

THE GREELEY SUGAR CO.

The Greeley Sugar Co. is largely owned by people in Utah, hence a report of its operations for the year 1903 will be of interest to "News" readers.

Sup. C. A. Granger to a representative of the "News," who interviewed him last week, said:

The beet crop for the Greeley factory is very much better than it was a year ago, and the farmers are correspondingly better satisfied. Besides having a better yield per acre, the farmers have made a great deal of money this year over last by doing a much larger portion of the work connected with the crop themselves, rather than hiring outside labor to do it.

There has been a perfect understanding arrived at between the interests in the six best sugar factories in northern Colorado, so that now an accord, working together in perfect harmony, has been reached. The result is that the districts from which each factory will receive beets will be clearly defined and adhered to, and each factory will be able to secure practically all the beets required for the full season's campaign.

Generally speaking, the growers are very well satisfied, not only with the crop, but with the treatment received at the hands of the sugar companies, and the indications are that the beet crop is already established as one of their principal resources.

The additions and improvements made in the Greeley factory during the past summer have developed it into a plant of greater capacity than was anticipated. Instead of cutting about 600 tons of beets a day, the 700 ton mill has often been reached, and it is expected the average for the season will be close to 650 tons per day. There will be close to 55,000 tons of beets worked, from which there will be an out-put of approximately 22,000,000 pounds of sugar.

UTAH'S SUGAR RECORD.

(Including the branch of the Amalgamated Sugar Company at Legrand, Ore.)

Year.	Pounds Produced.
1891	1,112,800
1892	732,660
1893	4,100,553
1894	5,492,592
1895	7,030,000
1896	9,150,000
1897	3,670,700
1898	9,990,850
1899	10,385,875
1900	17,500,000
1901	27,000,000
1902	42,000,000
1903	50,000,000 (Estimated)