RECLAMATION WORK IN UTAH

The investigations in Utah by the reclamation service during the past summer have progressed so far as to assure us that the possibilities for many valuable and extensive improvements are very great. The total force employed in the field investigations during the summer months was twenty-three, and, in addition, all the projects under consideration have been gone over by one or more of the consulting engineers.

In addition to the work under the reclamation law, some very important work has been accomplished by Hydrographer Tanner, to whom has been assigned the specific work of stream gaugings, which is supported by annual Congressional appropriations. At the beginning of this year we had thirty-two stations in the State, where regular observations were made. Now we have seventy-two stations and extensions are contemplated to cover a number of important streams.

Before the best plans for the improvement and extension of the canal systems can be determined upon, this important work of stream gauging must be extended, and in order that no failures shall result, these measurements must cover a sufficient period of time to determine the volume that may be safely depended upon. Fortunately for us records have been kept on many of the important streams for many years, and the general behavior of such are well known, but this work of taking stock of the water resources must of necessity receive much more detailed consideration than has been accorded to it in the past.

In fact, the oldest irrigated section of the country, we must expect difficulty when we undertake to make improvements of the magnitude suggested by the general outline for the reclamation work in Utah. However, we are well advanced in our examinations and at an early date the possibilities should be determined in a general way. Our examinations have been carried on with the idea of securing a broad grasp of the entire situation, and at the same time to determine, in a measure, the details of all controlling factors.

It seems to be quite generally conceded that a point has been reached in the development of irrigation in the Cache, Box Elder, Weber, Davis, Salt Lake and Utah counties when further improvements and perfection of the various systems must mean the development of a plan so comprehensive and complete as to utilize all the water resources available to these counties. Such is the work laid out for the reclamation service in Utah. How well the desired results may be accomplished will depend largely on the attitude of the vested interests toward the plans that may be offered for the improvements.

Very much has been said relative to the Utah lake project, its general scope being fairly well understood already. It is a water resource that cannot be estimated in value, nor does it seem possible that plans for the more efficient control of the waters available will fail of acceptance by the farmers dependent upon the lake for a further development of their lands. I have maintained from the beginning of our investigations that nothing short of a system to completely control the lake to the limit of its water supply would be advisable. Such a plan will involve considerable reconstruction and improvement of existing systems, and of necessity the complete control of these systems by the water users' association, in order that complications may be avoided. The existing canal systems control the situation to such an extent that without their support the project cannot be carried through successfully, while at the same time our information and estimates all indicate that the lake can supply a much greater area than is now being irrigated.

It is a matter of much moment and regret that we have been obliged to report that the water rights on streams tributary to the lake are not well defined. The increased use of flood waters for early irrigation, and the fall and winter irrigation from the principal streams supplying the lake, seem to be indefinite matters. At this date, December 10, one of the most important tributaries to the lake is still all diverted onto the lands, and in the very highest flood season of last spring only a very small portion of this stream reached the lake.

Thus it seems clear that the question, where do certain rights end and others begin? must be authoritatively and definitely answered before any definite plans can be matured.

The Bear lake project has been a source of much comment in the northern counties. The Bear river has a very large flood discharge, the storage and utilization of which is contemplated by the plans in course of development. While the water rights on that stream are simple of solution, the engineering problems are complex and the possibilities scattered, varied and extensive.

The water supply is not sufficient for all the land, and a choice of lands and locality may involve various problems.

The possibilities extend from Pocatello on the north to Ogden on the south, with many very fine tracts of land. Our reconnoisance has covered all controlling factors of the situation, and the co-ordination of the information should enable us to offer a general plan for the project.

The utilization of portions of the Duchesne water supply by diversion into the great basin has been examined, but the engineering difficulties are so great that results cannot be announced at this time. However, I may say that we are still working at a plan for securing a portion of the supply from that source. The great value of the lands and the interest of the farmers are matters which commend this project to the most careful consideration.

The Weber river is one of the largest and most dependable flood streams of the State. The lands that may be benefited by extended systems are very valuable. Storage alone can accomplish further reclamation by that source of supply. In view of the great need for the improvements on that stream, our examinations have recently been extended to cover the possibilities of that source of supply. Storage facilities and water supply are receiving first consideration, and we hope at an early date to get a general outline of the possibilities.

Finally I may say that the vast amount of information we are collecting should enable us to choose such portions of the various schemes as will be feasible to develop, and in the effort to solve these problems I am aware that success can be attained only by the most thorough co-operation of the thousands of farmers who own the lands.

GEORGE L. SWENDSEN.

THE LIVE-STOCK SITUATION

Cattle are low-priced and beef high, sheep high-priced and mutton low, and hogs low-priced and bacon, hams and lard high.

If supply and demand regulate prices, packers and dealers on the big markets so positively assert, why this paradoxical relation of values?

A summary of the receipts at the big selling points during the year will disclose that nearly half a million less cattle have been marketed during 1904 than were sold over the same scales in 1903, and that during the same period about an equal number of sheep and lambs in excess of the previous year's receipts have been exposed for sale at these Eastern centers.

Has the demand lessened by reason of decreased consumption with an increasing population and an extension of prosperity at home, or exportation distributed in spite of enormous sales to foreign war commissaries on top of the normal demand?

Sheepmen Content.

As far as our sheepmen are concerned, the average man is not puzzling his brains over the vexing question just now, when his every visit to the city brings him in contact with a wool-buyer who wants to dicker for the fleece his flocks are still carrying around on their backs at prices ranging from 5 to 7½ cents per pound higher than last year's clip sold for, sacked at his shipping station. He's satisfied that supply and demand regulate at times, and make a good job of it, and for the most part men in Utah sheepmen are taking the advances tendered on next spring's clip and are contracting their fleeces at figures in between 18 and 20 cents a pound. And they've been cutting loose quite a number of herd sheep, also, at the prices at which the latter have generally advanced under the jump in wool values during the past three months. The bulk of the latter trading has been with home buyers and local buyers for killing establishments within the State and on the coast. Delayed in getting shipments out to the big Eastern markets after the summer strike of Eastern packers' employees, by reason of a scarcity of railway equipment, a great many thousands of Utah-owned sheep were turned back on the ranges to be carried over by their owners another year. The disappointment caused by their inability to get cars and their shipments upon the market was keenly felt and loudly complained of at the time by owners, but the owners are now fully reconciled in the home sales they are making at figures for stock sheep considerably higher than the fat kinds brought at the other end of the line during the shipping season.

Compared with recent previous years, Utah desert and other winter ranges are in excellent condition, and hay to supplement them as well as fatten the usual number for mutton purposes is more abundant and lower-priced than it was a year ago.

The winter losses of two years back continue to show in the total tally of sheep within the State, although favorable seasons since and liberal ram purchasers are rapidly operating to overcome the deficit and bring the holdings of our flockmasters up to the maximum figure of three years back. The present rise in wool will materially contribute to this numerical increase, as the old breeders will hang on to their young breeding ewes more than they have been doing, and neophytes will dip into the trade on the prospect of big profits, take older biddies and keep their carcasses off the block as long as there is a prospect of getting another lamb on their tally sheet.

Cattlemen Not Happy.

All in all, it's mighty fine sledding for the sheepman this winter and, by way of contrast, extremely poor skating for the man of cows. The latter has been up against a bad situation, in fact, for a couple of years, and he's not comforted by the commission man's story, when he goes East with a shipment of cattle, that supply and demand regulate the prices he has had eased into him for his highly bred and carefully cultivated product.

If the shipper happens to be a resident of some city somewhere, and a consumer as well as a producer, he reflects that his own meat bills have been just as high while cattle have been selling at abnormally low prices as they were when the latter brought a cent a pound more on the hoof, and his memory of the aggregate receipts for the year, contrasted with corresponding periods of higher values, completely refutes the threadbare worn theory of operators on the big markets to defend the packers against charges of price manipulation.

The trouble of the business is this: The cowmen of the country have drifted into the method of marketing too big a proportion of their product at a few selling places. Favoring railway rates to and from these particular centers are largely responsible for this drift. Coupled with this enormous average is the vast resourcefulness of the converters who make meat and manufactured articles and supplies of the shippers' live consignments.

Chicago, Kansas City, St. Louis, South Omaha and, lately, St. Joseph, catch practically all the fit cattle in the country, as well as millions in various stages of unfitness.

They pour into these centers without pause en route for information upon the probable supplies, and there is no source from which they could secure authentic and serviceable data upon the subject, under existing conditions.

The marketing of mutton sheep of late years appears to be much more intelligently directed. Few shipments made from remote localities go directly upon the market without breaking bulk at points favorably situated for distance and cheap feeding facilities from these hopping-off places. Trainload consignments are cut down frequently, after personal observation or consultation with salesmen, by their owners to offerings of a few deckloads each day, thus distributing supplies that, pushed forward, would contribute to a glut and enable packers and other "snap" men to work out their own ideas of values.

Buyers Take Advantage.

Dropped at their very doorways by the thousands, and at times with seeming disregard of not only their needs, but their ability to handle the supplies, is it to be wondered at that buyers take advantage of a situation heedless sellers make for them?

The latter have made and are continuing to make much of their own misery. Among other fool notions that the average fat cattle shipper has picked up in connection with the marketing of his cattle is the belief that Monday at Chicago and Tuesday at Kansas City are the only really desirable days to hit those selling places with their stuff.

Laboring under this delusion, the first of the week at these points witnesses enormous receipts, far beyond the needs of the market, and prices tumble, of course, there and elsewhere. Elsewhere because Armour at Omaha and Kansas City won't pay steady prices on nominal receipts, when Armour at Chicago is buying at 25 cents off because of a multitude of cattle. Armour is on all the markets, as are his competitors (or co-conspirators), Swift, Morris, Cudahay and S. & S., and they buy the big end of the receipts. If they are compelled to buy their needs on a single day at any one place, they will make carrying charges in the prices they pay, as cowmen have found out, and their estimate of this cost will be so liberal in their own favor as to make the shipper feel that it would have been cheaper to have fed the cattle in their own feed lot on country grain until the big butchers were ready to knock them down.

Cattlemen must do some figuring for themselves if they hope to make their business continuously profitable. Short periods of successful conduct as against much longer ones when price depressions make it a losing venture, fail to make it the right sort of an average; and that's the history of the cattle business in a nutshell of late years, here and everywhere else. Something is wrong and pencil work won't entirely right it. Nobody expects to do away with the big markets or destroy the big producers. Their importance to the industry and the consuming public are fully understood and just as fully appreciated.

As a matter of fact, the present marketing methods are embarrassing to them in the tax at times they place upon their facilities and resources, comprehensive as the latter are; and the even distribution suggested would be helped rather than hindered by them, in order to cut out dead-loss features and permit a steadier operation of their trade.

Local Plants Urged.

And, following the evener distribution of receipts, cowmen should work to reduce receipts at the big centers by encouraging local killing, from local production, to the fullest extent of local demand everywhere.

This does not mean the wholesale building of larger packing-houses throughout the country, nor the erection of such plants of any size where the variety of production in the way of supplies and the volume of consumption does not invite their construction. Applied to Utah, it means that, with facilities suited to its needs, locally provided to kill our own cattle in their primest condition and prepare their carcasses for consumers in up-to-date fashion, a home market would be made for every steer and cow now raised in the State, to the relief of Eastern markets and the greater economy of both our beef-raisers and eaters; and it means that, if the same practice is extended throughout the larger cities of the West, a wider distribution of present receipts will be secured and a much larger percentage of the trade taken out of the hands of the few people who now control it.

Herds in Good Condition.

In numbers the herds of the State are greater than they have been for several years, and the cattle are going into winter quarters this season in excellent condition.

Sales to outside buyers have been few in number and small in volume for the past two years, owing to the low prices which have prevailed; and but for some heavy buying by local feeders, like Saunders, Rich, Parsons, Keogh and a few others, at the tail-end of the season, the year's cow trading would have been on the butcher order. Within the last two months, however, several thousand head of steers have been bought by these operators to fill their own and others' feed lots, and many have been placed on pulp at the sugar factories in Utah and adjoining States. The outlook for these latter deals is very promising, as the prospect for a home demand and supplies for coast and Sound killers never has been better.

Hogs and Packing.

Although thousands of hogs troop over Eastern weight scales these days at prices fully 20 per cent off from the values they brought six months back, and the packers' buyers on the big markets daily predict their further downfall, Salt Lake housewives continue to pay war-time prices for any little bunch of ham or bacon they order from their local dealer, and the little tin of lard compounded with tallow and cotton-seed oil continues to come high as of old. Dependent upon the Eastern prepared article for their entire supply of these indispensable necessaries, there will be no escape from the manufacturer's evident design to get strike cost out of his 6-cent and up hogs, regardless of his ability to replace such supplies from present receipts which are selling at an average of a cent and a half a pound less. And we might be making all of our own hams, bacon and lard, and a nice surplus, with local packing facilities! There is a cheering prospect just now that the early spring may bring such a badly needed institution. Steps were taken last fall by local men to promote the erection of a packing-house in Salt Lake of suitable proportions to the supplies and needs of the immediately surrounding country, which were very generally encouraged both by the local press and home capital, and it is confidently believed by the movers in the commendable enterprise that the project will be completely financed shortly, and that the plans already made for the construction will begin to evolve.

Horses and Mules.

The horse market has been dull in sales only during the year. Prices have been generally very much higher and there is quite a revival of the old good breeding interest once prevalent in this State.

Noticeable in the latter connection is the growing kindliness of some of our draft-horse people to the breeding of mules. A prominent paper had the following to say recently of this useful animal:

"Live-stock prognosticators are predicting a boom in the mule industry during the next decade. There has evidently been an abnormal prejudice in the Northern States against this useful hybrid, which is slowly being eliminated as the superlative qualities of the mule become established. In Chicago and other Northern cities mules are acquiring a laudable reputation as patient, reliable and endurable workers.

"There are 2,757,916 mules in the United States, valued at $217,532,832.

"The mule is a rugged animal and an easy keeper. It will subsist on a smaller ration than a horse and is almost immune from diseases. The mule is of greater longevity than the horse, and is, therefore, cheaper for prolonged service than its rival. The mule has more vitality than the horse and is capable of greater endurance.

"The cost of breeding mules is no greater than raising horses, while their liability to blemishes is much less. Mules average around $11 higher than horses in value and offer greater pecuniary profit on the cost of production. It is expected that a new source of demand for mules will develop in the construction of the Panama canal, as they are admirably adapted to the torrid zone. The industry is in a flourishing condition and promises great profits in the immediate future.

"The cost of Government mules during the first six months of 1904 averaged $190.85. In 1898 the average cost was $172.93, an increase in valuation greater than in any other branch of live-stock husbandry."

During the year at least a dozen high-class jacks have been imported into the State from Kentucky and Missouri by Utah men, who see in the extension of the beet-growing area of this region, projected railway and irrigation construction and other developmental work unbounded possibilities for the Missouri songster.

May his tribe also increase in these, to his species, most salubrious parts.

JAMES C. LEARY.

SHEEP AND WOOL.

The year 1904 has been an excellent one for the woolgrowers of the state and the outlook is better now than at any time during the past four years. Sanpete county is the center of the industry and reports from that section show a great falling off in numbers of sheep since 1900. However, although the inspection record for this year shows a decrease of about 200,000 sheep from last year's report, the wool clip for the same time shows an increase of nearly 3,000,000 pounds over that of last year, in spite of the large reduction in number of sheep. This is attributed to the great lessening of disease among the sheep this year, owing to the more rigid enforcement of the sheep inspection law. For this reason the sheep are better fleeced and wool is more grown. The ranges are also in better shape, owing to the decreased number of sheep on them. On account of scarcity of good range and lack of profits many sheepmen have abandoned the business during the past ten years, and the consequent reduction in number of sheep and the shorter wool supply has created a better market and increased prices. The reduction from 1900 to 1903 alone amounted to almost 2,000,000 sheep, the long hard winter of 1902-03 being mostly responsible for this great falling off.

The good results of the enforcement of the sheep inspection law is shown in the fact that on account of disease and thinness among the sheep of last year many only sheared three pounds of wool, while the 1904 showing averages eight pounds, which will readily be seen would account for the great increase of wool from fewer sheep.

The sheep market averaged fairly good during the summer in spite of the great packers' strike all over the country. Since the spring clip was exhausted, wool buyers from all over the country have been buying up much of next year's production in the West at an advance of 3 cents. This is an excellent showing, as the average price for the past several years has been 14 cents.

Boston is the wool market of the country and gets the bulk of Utah's production, although many shipments go to St. Louis. Many of the Boston mills are closed now on account of shortage of wool all over the country. All of old stock held in reserve has been consumed during the shortage of the past several years, hence the contracting for next year's crop ahead of time.

The live stock assessment report for the year 1904 for Utah shows a total of 1,389,381 sheep, valued at $2,799,810. The true number is about half a million more and the wool clip is 14,000,000 pounds.

DAIRY AND CREAMERY INTERESTS

By Prof. R. W. Clark, Agricultural College, Logan.

Dairying in Utah is in its infancy, and is making scarcely any growth. The irrigated sections offer most favorable conditions for dairying which, if intelligently carried on, would be highly profitable. The winters are short and mild, the growing season is long, the summers are pleasant with cool nights, nights are but slightly troublesome, and abundant succulent pasture can be had all summer. Utah is one of the few most highly favored dairy sections in the United States.

The greatest drawback to dairying in Utah, as in other States, is ignorance. Evidences of poor farm economy are everywhere apparent. Thousands of cows are being milked that are fit only for the block; thousands of tons of lucerne are wasted in the curing and in the feeding, and hundreds of tons of poor butter and cheese are being made. The great need is education, which means better cows, better feeding, good butter and cheese, prosperity and contentment. Successful dairying is a business that requires education as truly as law, medicine or any other profession.

Beginning and Progress.

The dairy industry of Utah was established about fourteen years ago, and made good growth up to about the year 1900, when there were seventy-one factories in actual operation in the State. Since then there seems to have been a decline in the number of factories. In view of the fact that milk has been selling at better prices in recent years than previously this falling off is difficult to account for. Sugar beet growing in certain sections, increased scarcity of labor and better prices for wheat have probably been most instrumental in reducing the dairy output of the State. A great awakening in dairy interest passed over the country during the last decade with a general lull beginning about the year 1900. In the Eastern States prices for dairy products have dropped somewhat, while in Utah they have remained good and the demand strong. In December, 1903, butter retailed in Salt Lake City as high as 35 cents a pound and this year it is being retailed at 30 cents apound. There was a slight decrease in price during last summer but good butter never sold for less than 25 cents. The cheese market has been brisk and prices have been good all along, but the inferior quality of cheese now being made is injuring the industry. The dairy outlook in Utah at the present, from all in locations, is very discouraging, especially so when we consider that its standing at one time ranked well with that of any other State in the Union.

In outlying places, long distance from the railroads, where good pasturage can be had and where lucerne is abundant and cheap, dairying is the most profitable line of farming and will bring more financial relief than any other line. In some of these places hay is selling for $3 a ton, which, if properly fed to good dairy cows, would be worth $6 or $7 per ton. Indications are that fewer dairy products are being shipped from the State than in previous years.

Equipment of Creameries.

Some of the creameries in the State are modern, well equipped and well run, while others are very poor, dilapidated and run in a very slip shod manner. Some of our factories are so small and poorly patronized that they struggle for existence and could not exist at all if they did not employ cheap labor. In planning and constructing some of these buildings such a poor business and sanitary policy was followed in the desire to build cheaply that we have some factories that are unfit places in which to manufacture an article of human food. In addition to the causes previously enumerated the unsanitary condition of such factories is a reason for the present lull in the dairy business.

All cheese factories should be provided with suitable curing rooms. Many of these are unfit for storing cheese while it is curing. Every cheese-curing room should be so constructed that a uniform temperature of about 60 degrees F. can be maintained, combining a fairly moist atmosphere with good ventilation.

Need of Trained Men.

As previously indicated the dairy industry is on the decline and a two weeks' trip by the writer recently taken into the central and southern parts of the State tends to confirm this belief. The creameries at Hinckley, Fillmore, Beaver and Nephi are running at about one-third their capacity. The creameries at Tooele, Morgan, Murray, Goshen and the central creameries of Ogden, according to report, are closed. The creameries at Provo owned by L. L. Bunnel, and Holdoway and Smoot, are practically closed, the small amount of milk received is being shipped to Salt Lake City. Some of these creameries are brick structures fully equipped and are being offered for sale. It is highly probable that there are many other creameries in the State in the same condition of which no report has been secured.

The great cry at present is for men trained in the art and science of butter and cheesemaking. There is a lack of competent butter and cheesemakers, trained help is scarce and cannot be had because of the low wages that are being paid factory operators. Without a first-class maker the best-equipped plant, supported by the most loyal patronage, will not flourish. The efforts of a hundred patrons will count for naught if the raw material goes through the hands of an inefficient, indifferent man. The most successful creameries are those that employ the best talent. Operators are paid about the same wages as sheepherders, and we need not expect much improvement in dairying as long as we can see no difference between the qualifications of a sheepherder and a butter and cheesemaker. By reducing or holding down the wages of an efficient butter or cheesemaker we turn a blessing into a curse. The qualifications of such a person are numerous and we are fortunate when we find mechanical and business ability combined with good judgment, tact and honesty in the same man. These qualifications command good compensation in other lines. The factory operator is a very important person; he should be a person of technical training, alert from morning till night and see that the work is conducted on scientific business principles. He should be well paid—$100 per month is not too high a wage. I find many factories in which a great gulf seems to exist between the patrons and the operator and management. This is wrong. As long as such a condition of affairs exists the patrons will not work for the best interest of the concern and without their hearty co-operation a butter and cheese factory cannot prosper as it should. If the operator is wise he will try to secure and retain the good will and sympathy of the patrons. Small fortunes are lost every year in Utah by the creameries and cheese factories because of the short-sighted policy in employing cheap (?) operators.

It is astonishing the little dairy knowledge that some of our factory owners possess. The result is that the business can be profitably carried on only at the expense of the milk producer, who is often justly dissatisfied with the returns he receives.

Faults to Remedy.

The milk producer is often at fault, and much of the poor butter and cheese found upon our markets can be traced to his neglect and indifference. The deplorable condition of the milk as it is sometimes received at the factory is unbelievable. I have been informed a number of times this summer that some of the cheese factories in the State have received milk that would "set" in ten minutes after the rennet was added and before the curd knives could be used. In some cases the curd would not be cut, but would be worked with a hand rake. The milk producer and cheesemaker were equally to blame, the latter for receiving such milk.

Methods of manufacture are by no means uniform and our markets must be failing, for this reason if no other. The conditions at each factory will have to determine for the maker what plan he will pursue for best results. An article of high uniform quality is always given the preference. A commission firm recently informed the writer that there was more profit and satisfaction in handling prime butter at an advance of 4 or 5 cents a pound than in handling the average butter as it is found upon the market.

Cleanliness both in handling of the machinery and utensils in the factory and in the care of the milk by patrons is more important than methods. Pumps, pipes, etc., should be cleaned often and to this cause a great deal of "off flavor" butter can be traced. Churns, vats, etc., are usually kept clean, though not always.

The use of the acid test for determining the ripeness of cream, the use of pure culture starters, the use of the rennet test in determining the ripeness of milk in cheesemaking, the use of the Wisconsin curd test in determining grassy milk and the use of the hot iron in cheesemaking are unknown to some operators and considered by them as fads. Though the conditions just described do not predominate they are too much in evidence. Utah has some very fine up-to-date factories, and it seems the desire of some of the large factory owners to keep abreast of the times. Four firms have recently replaced their old factories by new ones that are models in every respect; neat, easy to keep clean and equipped with a view to do a large amount of work with the least amount of energy. Some of the owners of these factories are of the most progressive type, as shown by the equipment of their factories and their system of keeping accounts. The only fault that can be found with them is the incompetent help they employ and the low wages they pay.

Changes in Methods.

Considerable change is taking place in the creameries which are going from the central skimming system to the hand separator system. This change is not confined to Utah alone, but is general throughout the United States. By the hand separator system the milk is separated on the farm and only the cream is taken to the factory. Some of the factories of the State are adapting themselves to the change admirably, while others are apparently opposing it strenuously, much to their loss and to the injury of the dairy industry. As high as $50,000 worth of hand separators were sold to Utah farmers in 1903. There are many advantages secured by the use of the hand separator, and good butter can be made by proper care of the cream. A good deal of the poor butter now upon our markets is due to hand separators because the farmers have not learned yet to properly care for the cream and sometimes it is not made into butter for many days. Where cream is shipped there is a tendency to hold it too long, especially in cold weather. The results of this practice are bad.

The two milk condensaries, one located at Logan and the other at Richmond, are in a thriving condition and the farmers supplying them, and taking pains to produce good milk are highly pleased with the results. The daily capacity of these two plants is about 120,000 pounds of milk, or four carloads of 30,000 pounds each of the condensed article per week. The plants are to make butter and cheese when the conditions demand it and the price paid for milk depends somewhat upon its fat content.

One of the greatest drawbacks to dairying in Utah is the lack of harmony among the creameries and the inability to understand each other. The struggle for trade is sharp and in consequence of it milk and cream are frequently received that are of a very low keeping quality. The factory owners, operators and milk producers should come together at least once a year, get acquainted and learn the needs and requirements of the business. As long as a strong feeling of a distrust among the creameries exists the dairy industry cannot prosper.

Inspection Is Needed.

The time has arrived in Utah, as in many of the other States, when a semi-yearly inspection of all the creameries and cheese factories in the State should be made. The office should be one of inspection and instruction and the incumbent should be clothed with sufficient power to enforce proper methods of sanitation on both milk producer and factory operator. The State needs the service of a skilled butter and cheesemaker as inspector who is thoroughly acquainted with the business from the cow to the marketing of the product. The factory operators, though they may be competent, shut up in the factories as they are, get into ruts and some one is needed to help them out, inspire and lead them on and eventually increase the patronage of the factories. In the States where inspection and instruction have gone together there has been a marked increase in the output and quality of product.

In any event, something must be done for the dairy industry of Utah, more than is being done at the present time, and in the writer's judgment this work must begin with the operators in the factories. Prof. Henry of Wisconsin, in writing on this subject, said: "I believe we could inside of a year or two, advance the price of Wisconsin cheese from a half a cent to one and one-half cents per pound, according to the size of the income and to the thoroughness of the work done." Prof. Henry further says that the State of Wisconsin should employ forty cheese inspectors at once. A thoroughly trained enthusiastic creamery inspector in Utah devoting all of his time to the dairy industry would more than earn his yearly salary every month. The State cannot afford to be niggardly in this matter, if it does it will be "penny wise and pound foolish." May the time be at hand when the downward movement of the dairy interest of Utah shall be checked and when we shall enjoy the great benefits that come from a rigid State dairy inspection.