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A History of Wool Manufacturing as it is Related to Wool Marketing in Utah

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A HISTORY OF WOOL MANUFACTURING AS IT IS RELATED TO WOOL MARKETING IN UTAH

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INTRODUCTION

A HISTORY OF WOOL MANUFACTURING AS IT IS RELATED TO WOOL MARKETING IN UTAH

It has been advocated by many sheep raisers and individuals interested in the wool industry of Utah, that wool manufacturing should become a leading industry of this state. Factors which seemingly corroborate such contentions are readily apparent. Utah's annual wool clip ranges between eighteen and twenty-five million pounds of wool.(1)*. The state is located in the center of the Western range states where the bulk of the higher quality wool of this country is grown. A part of the marketing costs of freight, commission charges to a limited extent, and high storage costs could be decreased. These savings would result in higher prices of raw wool. Sheep growers would also have an opportunity of observing the manufacturing process and thus learn to recognize the characteristics of better quality wool.

Furthermore, an abundance of electric power and fuel is available. Soft water, which facilitates the scouring of wool, is readily obtained. With the establishment of such an industry, there would be vast opportunities for employment ranging from unskilled laborers to skilled and technical experts. The financial benefits which would accrue to the people of the state would materially bolster its present industrial status.

Conditions which make the issue controvertible are not lacking. The necessity of tremendous capitalization to put the industry on a comparable basis with Eastern corporations, the further necessity of specialization for maximum economic efficiency (2) and the existence of discrim-

NOTE: All italicized numerals refer to references numbered similarly in the bibliography.

inative freight rates in favor of central distributing centers are potential obstacles, some of which would be difficult to overcome. This is especially true of developing a wool manufacturing industry vast enough for specialization. The Bradford district of England has developed a specialized industry (2) and the New England interests of this country are tending toward the same policy (3). The period of slow gradual evolution which a relatively recent industry would of necessity undergo in becoming established, would put it at a serious disadvantage in competing with similar but more firmly entrenched firms of New England. The means of meeting this competition by adolescent establishments of this region, may be possible by developing a marketing service difficult to meet by Eastern industries and by producing a peerless quality of goods that would be difficult to replace.

Thus, it is the object of this thesis to investigate the possibilities of utilizing Utah wools in a home industry, wool manufacturing, perhaps as it is practiced in Australia, where the less saleable wool is used in wool manufacturing, whereas the choice wool is sold as raw wool. To adequately analyze such a possibility, it is necessary to review the practices of marketing wool which have been employed to dispose of the large surplus which has existed since shortly after the pioneers came into Salt Lake Valley in 1847 (4) and which may be expected to exist in the future.

The disposal of the wool surplus which has become a basic agricultural commodity of Utah has been fraught with dissension throughout the history of the state. Factors which have been instrumental in causing dissatisfaction among wool growers are the lack of close contact between grower and buyer, the wide fluctuation in wool prices with a resulting element of speculation and a lack of satisfactory grading and standardization of wool.

Disregarding the possibility of marketing the state's wool clip to a home industry and considering practices which have been in vogue and which have been adopted in other places than Utah will provide an analysis of the marketing problems which have in the past faced the Western wool grower and which are today still an important issue.

To the casual observer, it might seem that wool marketing is today a subordinate interest among the wool producers of this country. It is true that on December 24, 1929 a progressive step was fostered by the United States Government toward effective, cooperative wool marketing when the National Wool Marketing Corporation was formed under the auspices of the Federal Farm Board (5). An utopian marketing system has been attained by no means as yet, however. Economists would further expalin the current reticence of better marketing advocates on the basis of low prices. During a period of low prices, the primary interests of the grower are concerned with efficient production and decreasing production costs. It is obvious that such considerations are of first importance.

On a rising price market, more obscure problems such as marketing, are attacked. Thus, those persons who contemplate higher prices may expect within the next few years to observe a repetition of marketing controversies. Coping with obsolete methods of preparing the clip for market, grading methods, cooperation, efficiency of existing cooperatives, and more diverse considerations such as commodity advertising and improved processing will become timely and universal. It is on the basis of such an assumption that I propose to study "A History of Wool Manufacturing as it is Related to Wool Marketing in Utah," the title of my thesis.

REVIEW OF LITERATURE

Wool Manufacturing

In two volumes, Cole (3) reviews the general history of wool manufacturing in the United States. As a representative period of household or domestic wool manufacture, he uses the year 1760. His analysis is made of Eastern conditions, but according to his own statement, the domestic era of wool manufacture was repeated again and again in the frontier of America. For the first representative period of the small factory, 1830 is the most typical year. This period was one of numerous factories none of which were very extensive, but all of which supplied an increasing demand for manufactured woolen products. Rapid expansion and quantity production were well marked by 1870. This period represents the dominance of the mature factory in the wool industry. Modern phases of the industry as we know it today are indeed a contrast to the early periods of the industry. A heavily consuming wool nation - with approximately a fifty percent domestic production gave rise to tariff protection and high prices which established wool manufacturing as one of the foremost of modern industries. Large scale production, consolidations which involved immense investments and specialization are more recent features of the industry.

History Journal, an indexed set of volumes which include newspaper clippings of early Utah newspapers, represents the most extensive record of early wool manufacturing efforts made in the state of Utah.*

Bancroft (6) states that in 1883 there were about 450,000 sheep in Utah which sheared on an annual average, five pounds of wool each,

*On file in L. D. S. Church Library, Church Office Bldg.
Salt Lake City, Utah

or 2,250,000 pounds of wool. He further states that about one-fourth, or 562,500 pounds was utilized by home industry, both factory and household. In 1882 there were ten mills operating in Utah at about half capacity. Their equipment included ten sets of cards, 120 looms, and 5,000 spindles which annually were producing goods valued at $300,000.

Whitney (7) states that the first carding machine in Utah was operated by Amasa Russell in 1848. Brigham Young and Heber C. Kimball owned carding machines on Parley's Canyon Creek and City Creek, respectively in 1851. The same year marks the opening of a small carding mill in Provo by Shadrach Holdaway. In 1852 the legislature appropriated $2,000 toward the construction of a mill in Salt Lake Valley.

Also according to Whitney, the Provo Woolen Mill was organized by A. O. Smoot and associates in 1869. A factory was built in 1870-1872 in which was installed $70,000 worth of machinery. The company was capitalized for the sum of about $500,000. Materials produced included blankets, cassimeres, ladies cloth, linsey, kersey, tweed, shawls, plain, twilled and dress flannels, wool batting and yarn. Officers of the company were: Wm. B. Preston, president; Jos. F. Smith, vice-president; Thomas R. Cutler, Reed Smoot, George Romney, J. R. Barnes, C. S. Burton, Wm. W. Riter, and John C. Cutler, directors. W. E. Basset was secretary and treasurer. For several years this mill was the largest mill west of the Missouri river.

Market Preparation of Wool

Methods of handling wool and grading by Marshall and Heller (8) was published by the United Stated Department of Agriculture and distributed among sheep men in 1915 in an effort to improve present methods.

Baling wool was advocated because of the economy of shipping baled wool due to a difference in freight rates. It was stated that growers experienced annually a loss of from ten to twenty percent of the value of their wool because it was not graded. It was pointed out that wool dealers made purchases on the basis of minimum values to protect themselves against inferiority of the quality of the wool which was often due to an excessive use of paint, a mixture of black wool with the white wool, an abundance of filthy tag locks, the use of sisal fibers in tying the fleeces, and a mixture of foreigh materials among the wool.

The Canadian Agricultural Commission (9) reported a cooperative wool scouring plan operating in Chicago in 1911. Wool producers in the fleece states sent their wool to the Boynton Wool Scouring Mill where it was graded, scoured and then sold to manufacturing concerns.

A government circular distributed in 1914 encouraged grading and sorting of wool at the time of shearing. It was asserted that this operation, if conducted at the ranch, would materially decrease the cost of the process due to less handling of the wool.

F. R. Marshall, again in 1916 published in the United States Department of Agriculture Yearbook an account of the Australian shearing system as it was then being practiced by a cooperative concern in Wyoming. Mr. Marshall had been to Australia where he had studied the system as it was successfully being used. He affirmed that this country must sooner or later adopt a system of wool marketing which would approximate the one of Australia.

It is generally conceded that the most reliable book recently published on the sheep and wool industry in the United States, is that

by Hultz and Hill, published in 1931. Hill (27) concisely reviews the wool industry of this country as to physical and chemical properties of wool, wool grades, manufacturing processes, and wool marketing. The treatise on wool marketing is primarily devoted to the Territory states.

The National Wool Grower as the official organ of the association of the same name has been published in Salt Lake City, Utah, monthly, since January, 1911. Since that time, it has voiced the problems and been a reliable record of noteworthy proceedings and events which affected the sheep industry. To attempt to review its pages would be to picture the whole of that industry from the standpoint of the producer.

The Commercial Bulletin, published weekly in Boston, Massachusetts, together with the Thursday edition of the Boston Transcript, represents the wool manufacturing industry as comparably, but for a longer period of time, as the National Wool Grower represents the producer. The Commercial Bulletin and Boston Transcript are read chiefly for their market reports and their comprehensive reviews of the wool industry.

WOOL MANUFACTURING

West Jordan Mill

Despite the fact that the territorial legislature of Utah appropriated $2,000 for the construction of a woolen mill in Salt Lake Valley in 1852, (10) it was not used. The terms were too stringent to suit Mathew Gaunt who was building the factory at West Jordan. Even though his factory was not finished until 1855, Mr. Gaunt was weaving during the construction of his factory in 1852. It is asserted that this factory was the first to be built on the Pacific slope. This mill was operated until it burned down in 1888. (11) The loss was estimated between $15,000 and $20,000. It was then owned by Morris and Company of Salt Lake City, Utah.

Deseret and Wasatch Mills

Brigham Young built a woolen mill on Big Kanyon Creek, later known as Parley's Canyon Creek, in 1864, which was known as the Deseret Woolen Mills. In 1867-1868 another factory was built a short distance west of the first one by A. O. Smoot, W. S. Burton and John Sharp. This factory was called the Wasatch Woolen Mills. It was completed in all detail at a cost of about $60,000. The factory was a three story stone structure, ninety by thirty-three feet. The first floor was occupied by the power looms, the second by carding machines, and the third floor was used for storage. An adjacent frame house was used for finishing and dyeing. The complete equipment included two renovators, two pickers, four sets of Bridesburg cards, three spinning mules, one jack, 1,260 spindles, thirty-one power looms, two hydraulic presses, one screw press, two shearers,

also gigs, nappers, spoolers and twisters, a bleach house, dye vats, scouring boxes, fulling mills and etc. The mill was run by two Leffell water wheels. One was a twenty inch wheel with an eighteen foot head; the other was a twenty-three inch wheel having a head of twenty-two feet. They had a combined force of eighty horsepower.

Wool was sorted into five grades. Grade number five was the coarsest wool, and was used for blanket and carpet weaving. The finest wool, grade number one, was used to make fine flannels and cassimeres. Grades two, three, and four were used to make linsey, kersey, jeans, tweed, and stocking yarns. According to W. H. Haigh, who was employed in the Smoot factory for several years after he came to Utah from Scotland, the machinery was not well adapted to handle Merino wool because of its fineness. Thus, the finest grade usually used represents about a three-eighths to a one-half grade of wool. The Smoot mill used between 100,000 and 125,000 pounds of wool annually. This wool yielded about forty per-cent clean wool.

In 1880 the mill produced 80,000 yeards of cloth, 13,000 pounds of yarn, and 300 pairs of blankets. Fifty men were employed, the pay checks ranging around $500 per week. W. S. Burton was mill superintendant and M. M. Young and C. S. Burton managed the warehouse in Salt Lake City.

THE PROVO WOOLEN MILLS

As previously related, the Provo Woolen Mills was organized in 1869. The Territorial Enquirer (13) for January 6, 1888 gives the dimensions of the four story factory as 145 by 65 feet. It was a rock structure covered with a half-mansard roof with tin roofing. It had a projecting stairway, surmounted by a tower reaching thirty feet above the roof. The

upper story was used for storage and for preparing the wool for the cards. On the floor below were eight sets of cards and one hand-mule of 240 spindles, two reels and two spoolers. On the next floor below was the spinning equipment. It consisted of four self-acing mules of 720 spindles each. On the ground floor was located nineteen broad and thirty-eight narrow looms, two wrappers and dressers, one shawl fringer, one quilling frame, one beamer and a machine of sixty-two spindles for making a double-and-twist stocking yarn. The finishing house was built of adobe. It was seventy by thirty feet, and two and one-half stories high. The first floor contained three washers, three frillers, two large screw presses, two gigs, one cloth measure and one hard waste picker. This mill was also run by two Leffell turbine wheels, thirty-six and forty-four inches respectively. A rotary pump was used to facilitate the scouring of the wool. South of the main building was another two and one-half story adobe building, thirty-three by one hundred and thirty-four feet. The upper room was used for receiving and sorting wool. The lower floor was used for the office, salesroom, carpenter's shop, and drying room. An adjacent one story frame house was used for dyeing and scouring the wool. The 125-150 employees were usually well trained men from Scotland and England. The annual value of the products averaged $150,000. The patronage was mostly limited to Idaho, Colorado, Montana, and Utah. However, goods were shipped in large orders to St. Louis, one order being a $70,000 order in 1888. Also, according to a statement made by Director Wm. Peterson of the Utah State Agricultural College Extension Service, the suit cloth from the Provo mills was well known for its superior quality. Hart Schafner and Marx used Provo cloth until the factory closed due to a severe fire.

Reed Smoot managed the mill from 1884 until 1906 when it was sold to Jesse Knight and re-named "The Knight Woolen Mills".

Other Mills

Other mills which were built during the early history of the state were smaller than the ones that have been described in detail. In 1873 besides the two mills in Salt Lake City and the mill in Provo, there were mills operating in West Jordan, Brigham, Grantsville, Beaver, Washington, Springville, Kingston, Orderville, and Ogden. Details concerning the last seven mills is difficult to find. There are individuals still living in the state who may be able to contribute toward the completion of the story of these woolen mills.

A short news item in the Deseret News in 1888 stated that Wm. Ashworth, superintendant of the Beaver mill, was visiting Salt Lake City and Ogden placing orders for his products.

An item which appeared in the Deseret News in 1893 (16) read that the Ogden Woolen Mill, which had been closed for sometime, would resume operations under the ownership of Nicholas Finger, a rich tobacco raiser of Louisville Kentucky. It was stated that $150,000 would be expended by C. E. Mayne, the manager, in preparing the mill for operation. The location of the mill was given as northeast of the city on the canyon road.

We read in the Deseret News (17) that in 1871 President Lorenzo Snow with over one hundred people present witnessed the opening of the Brigham City Woolen Mills. In 1893 after the mill had been closed for a time, it was re-opened by the people of Brigham City with A. A. Jensen acting as manager. The structure was forty-five by one hundred and fifty

feet, two and one-half stories high and run by water power from the nearby canyon. Eight people were then employed to run the mill.

A new mill to replace the Wasatch Mill on Parley's Canyon Creek was begun in 1888. It was built in the Northwest section of the city by Frank W. Jennings, manager of the company. The mill was designed by Wm. Carroll. It was three stories, one hundred and fifty by sixty feet, with a limestone foundation and brick walls. It was operated by steam, the heat also being used in the wool processing. The cost of the building was $30,000.

Short Lived Knitting Factories

Three knitting factories of comparatively little signifigance in the industrial history of the state are the Salt Lake Knitting Works, the Utah Knitting and Outfit, and the Federal Sweater Mills, all of Salt Lake City, Utah. The Utah Knitting and Outfit was a jobbing concern which was managed by H. D. Hansen. It was organized about 1912 and 1918 the company bought out the Federal Sweater Mills. The Machinery was moved to Butte, Montana in 1921 and a mill was operated there for about three years when it closed due to financial difficulties.

Carding Mill

From the diary of William Hyde, deceased, one learns that in 1862 a wool carding mill was erected in Logan. One reads:"June--1862. This year I have installed a wool carding machine at Logan. The cost of the machine and picker, which I purchased from the States, was $1,100, freight was $160 and the building etc. brings the total cost to $3000. Abigail G.* directs the mill, having acquired her experience in Mass-

*Wife of William Hyde

achusetts. It is a valuable asset to my family in trading rolled wool for other goods and in preparing wool for spinning for the people of Cache Valley."

According to a son, William Hyde, now eighty-eight years old, the mill was run for several years after the death of his father, in 1874.

North Star Woolen Mills

In 1878 Edmund Buckley formed the North Star Woolen Company in what is now Franklin, Idaho, just a few miles beyond the present Utah-Idaho line. Three years later the mill was purchased by the Franklin Cooperative Company, Mr. Buckley being the manager. During the same year Mr. Buckley and S. R. Parkinson, president of the company made a trip to St. Louis where they purchased a picker, duster and two spinning jacks.

Part of their business was custom work. After estimating the shrinkage of wool brought to the mill by people of Cache Valley, a corresponding amount of yarn or cloth was exchanged for a small commission, which was cheaper than the cost of doing the same process in the home as was the custom in many pioneer households. Material manufactured by the mills besides yarn and wool bats, included linsey, flannels, jean and wool blankets.

When the mill was operating at its normal capacity, about fifty people were employed. Before the mill ceased operations it was fully owned by Mr. Buckley from whom it was purchased by his son, John Buckley in 1908.

Before the mill began operations, local products of the spinning wheels were woven by Peter Lowe and Thomas Hull, expert weavers who had learned the trade in Scotland. It was they who constructed the first loom

in Franklin.

Cache Knitting Works

In a small upstairs room where seamstress employees were required to furnish their own sewing machines, the Cache Knitting Works began operations in Logan in 1890 under the direction of John A. Hendrickson of Logan, Utah. For the first two years the business was limited to knitting stockings; supplemented by some crochet work done in private homes and brought to the mill for sale.

In 1893 an imported flat lamb knitting machine from Switzerland was used to make knitted underwear. It is asserted that underwear made by this machine was the first to be manufactured west of the Missouri river. When the sanction of the Latter-Day-Saint Church authorities was gained toward the use of knitted garments rather than "homespun", a remarkably thriving business began to develop and additional machines were installed.

Successive managers from 1900 until the close of the mills in 1931 were E. T. Lloyd, Oscar Bjorkman, E. J. Keveren and S. N. Daniels. According to Mr. Keveren, manager of the mills from 1922 until 1929, the mills in 1925 used approximately 60,000 pounds of worsted wool and 20,000 pound of woolens and cotton. There was an average of fifty factory employees and seventy-five solicitors during the year.

Hyrum Woolen Mills

Thomas Baron a nephew of John Buckley of Franklin, established the Hyrum Woolen Mills in 1892. When he began operating he had three circular Wildman knitters and two looms. His products were chiefly under-

wear, blankets and wool batting. In 1915 he moved from Cache Valley to a former mill site in Brigham City which had twice been razed by fire.

Fonnesbeck Knitting Company

Commencing in 1900 the Fonnesbeck Knitting Company of Logan, Utah reached a peak during the immediate post-war period of industrial activity in 1919 with an approximate business of $100,000. Employees numbered about fifty, over half of whom were solicitors. This mill now makes a specialty of wholesale knit underwear.

Union Knitting Mills

Elias Nielson, A. G. Barber, H. E. Hansen, D. C. Budge, and H. E. Hatch opened a knitting business in Logan, Utah in 1903. In 1904 G. W. Skidmore became manager of the mill and is now acting in that capacity.

The plant in 1904 operated three flat knitting machines, one special sewing machine, and three finishing machines. Before the current business depression there were at one time 125 men soliciting business for the company. The best year from a business standpoint was in 1928, when the company realized a $300,000 income from the sale of their products.

The factory occupied by the firm at the present time was built in 1916. The plant is now operating two Jacquard knitting machines the various stitches of which are determined by perforated rolls of paper which are similar in principle to a player piano. These machines are used chiefly in the manufacture of dress and sweater goods. The newly installed Brinton machine is used for the same type of work as the Jacquard, but it has a much greater cloth producing capacity. There are nine Scott and Williams machines

in operation which are chiefly used for the manufacture of underwear materials. Besides these machines there are forty-two sewing machines and other machines necessary for the output of the latest styles of womens' knit wearing apparel. The factory is adequately lighted, heated and ventilated. It is not crowded and provides comforts for its employees often lacking in factories of this type. The knitting is done on the third floor which is eighty by ninety feet.

The average number of factory employees now totals forty-five. This includes three weavers, seven office girls, four men, one who is the manager, the others are machinists and supervisors, and thirty-one girls who full, cut, sew and finish the cloth material.

Logan Knitting Factory

Melvin J. Ballard and Joseph E. Cardon established the Logan Knitting Factory in 1903. It was turned over to C. P. Cardon and Collins Cannon in 1917. Growth of the mills was rapid until post-war deflation and a resulting decline in sales injured the financial stability of the firm. Sales in 1922 before the decline, amounted to more than $200,000. In 1928 S. N. Daniels bought the factory equipment. It was the following year that the Cache Knitting Factory and the Cache Knitting Works were consolidated, with Mr. Daniels acting as manager. The result of the consolidation was a high overhead which decreased profits and necessitated closing the factory in 1951.

Logan Garment Company

In 1926 the Logan Garment Company of Logan, Utah was formed by Otto Mehr and J. W. Seamons. Machinery first used by Mr. Mehr was purchased from the Model Knitting Mills of Salt Lake City.

There are now two flat weave knitting machines operating which are used to knit woolen dress trimmings. The two Jacquard machines in operation, each knit about twenty yards of cloth per day. The five Brinton machines in use each knit one foot of cloth per minute. The circumference of the circular piece of cloth material produced is seventy-two inches. A hand knit machine is run by a specially trained operator who is capable of knitting thirty yards of cloth per hour. The material is used for edging and finish work. Such material is the same as that produced by the most expert hand knitter.

During the summer months when sales reach their peak, the company now has from 100-150 solicitors working for them.

The following table will show the growth of business as portrayed by the average number of employees during the years 1926 and 1934:

Table 1--Logan Garment Company Employees--1926 and 1934

Year	No. of Office Employees	No. of Knitters	No. of Other Factory Employees	Total No. of Employees
1926	3	1	6	10
1934	10-15	3	60	75

The following table will show the growth of business as portrayed by the value of the sales of goods:

Table 2--Growth in Business of the Logan Garment Company 1926-1934 *

Year	1926	1927	1928	1929	1931	1932	1933	1934
Thousands of dollars	22	36	86	124	60	73	150	264

The Logan Garment Company is now specializing in knit dresses. Although the factory is not prepared to handle raw wool, they purchase

*Figures for 1930 unavailable

most of their yarns from mills located in Portland, Oregon and Los Angeles, California.

Intermountain Knitting Factory

Another more recently built factory in the state is the Intermountain Knitting Factory at Ogden, Utah. It was built in 1928. It is a one story brick building, one hundred by one hundred feet. Like the Logan Garment Company it specializes in knit goods, principally ratine, tweed and frill. When they began to operate in 1938 they had one Wildman-knitting machine and six employees. They now run one Stafford and Holt, one Wildman, two Britons, three Dubied, German-flat-bed machines and one Grosser, German flat-bed machine. During the summer their salesmen number about one hundred and fifty. Their factory employees range from twenty to fifty. The present manager is I. W. Hickman. He affirms that their business in 1934 was about $200,000.

Two mills which are about the same in nature and size as the above mill are the Ogden-Utah Knitting Factory of Ogden, Utah and the Utah Knitting Factory of Salt Lake City, Utah.

Baron Woolen Mills

When Thomas Baron moved his three knitters and two looms from Hyrum to Brigham City in 1915, he purchased the site of the old woolen mill which had begun operation there in 1870. In 1925 his three sons, Thomas Jr., Rulon, and Glen, began to run the mill. In 1926 they began to devote their efforts solely to the manufacture of blankets. It was that year also, that they began a custom trade. They have grown rapidly since that time, the success of which is primarily due to the adoption of the custom trade. This practice dates back to the early history of wool manufacturing.

The plan is to make blankets for customers who furnish their own wool for a commission charge. This practice enabled the company to bolster their short seasonal patronage with a mail order business based on custom trade. This practice eliminated a sales force expense and protected the firm against price fluctuations of raw wool. They now run six modern Crompton and Knowles looms, and a 360 spindle mule. While they are running a twenty-four hour shift for six days of the week, they manufacture 1500 blankets per week. Last year their business was about $160,000, half of which was custom trade. This year they have already reached this mark.

The Baron Mill is now one of two mills in the state which handle the raw wool in all stages of manufacture. The overhead costs are low because of the ingenious combination of modern machinery and economical devices.

Utah Woolen Mills

The beginning of the Utah Woolen Mills was in about 1902. At that time the firm was known as the Ensign Knitting Mills, located in Salt Lake City, Utah. About three years later they were called the Cache Knitting Agency. The firm was at that time acting as a sales agency for the Cache Knitting Works of Logan, Utah. When the firm was started Samuel Spencer was acting as manager. In 1925 the present factory was built in Salt Lake City. The factory at Salt Lake City does not handle raw wool but has the most extensive knitting plant in Utah. Also, they handle more wool yarn as compared with other textile mills in the state. Whereas most of the Utah mills are operating on the basis of retail selling due to their limited scope of production, the Utah Woolen

Mills are also able to place wholesale orders. To do this it is necessary to have a complete set of knitting machinery, because an order may call for any of the many types of knit goods.

On February 22, 1928, ground was broken for the blanket factory of the Utah Woolen Mills at Murray, Utah. This plant is undoubtedly one of the most modern blanket factories in the West. It is modernly equipped to handle raw wool, the scouring plant being automatic and conducive toward the production of clean wool fibers. A federal licensed warehouse is is operated in connection with the mill.

There are ten looms in the factory which are capable of producing one hundred blankets during an eight hour run. During the time that both factories are running at full capacity during a forty hour week there are eighty people employed at the Murray factory and about one hundred and fifty employed at the Salt Lake factory. During the peak year of the firm in 1929, there were at one time one thousand people employed by the company. Their business that year nearly reached $500,000.

The following comments were recently made at personal interviews concerning the possibilities of the woolen industry of Utah:

Reed Smoot: "I made them (Provo Woolen Mills) pay for twelve years. It's a matter of good management."

Bryant Stringham: "We can't hope to compete on a large scale basis, but the commission costs are much less here."

Thomas Baron: "Frequent turnover presents keen competition."

Otto Mehr: "Our growth tells the story."

At the present time, the status of the wool manufacturing industry of Utah is sound. Indications are that there is opportunity for further

expansion. The use of raw wool other than for blanket manufacture is limited due to the large amount of capital necessary for the menufacture of worsted and woolen yarns.

Because the wool manufacturing industry of the state may be expected to utilize only a relatively small portion of the annual wool clip, the problem of marketing the surplus wool is of vital importance to the wool grower now, as it has been in the past.

The following summary of wool marketing in the United States is presented to indicate the progress which has occurred and may further occur in the efficient marketing of wool. A proper understanding of the efforts to market Utah wool in New England, reveals the possibilities of the Utah wool grower at the present time to dispose of his wool. Even though the amount of wool manufactured in Utah is relatively small, it has its affects on the local wool market by offering a market for the less marketable wool such as blacks and tags which may be well utilized in the manufacture of blankets.

COOPERATIVE MARKETING IN UNITED STATES

Early History

The Putnam County Wool Growers Association (20) is generally listed among the earliest cooperative wool marketing organizations of this country, not because of its large volume of business, which approximates 25,000 pounds of wool annually, but because of its persistent acttivity. It was organized in the vicinity of Greencastle, Indiana in 1885. Its members pooled their wool together from year to year to attract buyers around shearing time. A similar organization of less signifigance was formed in 1877 at Goodlettsville, Tennessee. It was known as the Goodlettsville Lamb Club.

Wool growers of Salt Lake Valley effected a permanent organization on April 7, 1884 (21). They called themselves the Utah Wool Growers Association. Officers were: E. M. Weiler, President; Joseph Harker, Vice-President; R. L. Howard, Secretary, and Henry Cohn, Treasurer. Directors were: Joseph Bennion, Ephraim Harker, Henry Harker, John R. Bennion, E. Webb, Joseph Stockings, and L. Bateman. The association was formed to promote the interests of the sheep industry and to devise a satisfactory means of marketing the wool clip. The organization was effected soon after E. M. Weiler and Major Silva of Ogden were chosen to attend a sheep growers' convention in Denver (22) on March 12, 1884 to discuss the possibilities of restoring the tariff of 1867. At the convention Major Silva was interviewed by one of the leading newspapers of Denver concerning the status of the wool industry of Utah. (23)

In 1887 (24) the Wool Growers Association of Southern Utah was

organized at Nephi, Utah. There were 105 members representing 252,800 sheep. Objects which the association aimed to accomplish were direct sale of wool to the manufacturers, to foster the sheep industry, to buy cooperatively, twine, sacks and other supplies and to decrease transportation costs of wool. The current expenses of the association was $7,500. This included the salary of the warehouse superintendent, warehouse charges, a large scale, and office furniture. This fee amounted to one-half cent per pound on the 1,500,000 pounds clip of the association members. During the same year two members of the association were sent east to familiarize themselves with the market conditions, to contact possible buyers of Utah wool and to arrange for the wholesale purchase of supplies. J. H. Erickson and J. E. Clinton were the directors who were chosen to make the trip. Some sheep men who had failed to join the association had sold their wool clips earlier in the season at $14\frac{1}{2}¢$-16¢. In doing so they had lost from three to five cents per pound. The association also advised its members to purchase choice French Merino rams at the prevailing price of $30-$40. It was advised that this practice would increase the fleece weights and enable the Utah growers to compete against Australian and South African growers who were able to operate under cheaper costs. The growers were also advised to improve the preparation of their wool for market to enhance the reputation of Utah wool among Eastern buyers. It was asserted that the members should practice grading of their wool and in time scour it before selling it. Also the association voted to promote Utah Woolen factories and to cooperate in developing water on the range.

A further account of the association on January 20, 1888 (25) stated

that the membership had reached 177 which represented 2,230,943 pounds of cooperatively handled wool for the season. Members were advanced $29,574.55 on their wool. All the wool was not yet sold nor all the returns available.

This account clearly indicates that Utah sheep men were among the first in the West to promote cooperative practices. Many interruptions have retarded the commendable efforts which were started by these men.

Wool Pools

Another organization of Southern Utah, organized about 1912 near the vicinity of Fountain Green was the Jericho Wool Pool (26). This cooperative gained national recognition when it sold its combined clips for seventy-one cents per pound shortly before the market break on May 20, 1920. The organization was held together by mutual agreement rather than by contract. The wool was pooled and bids were received by a sales committee. A sale was transacted upon the approval of fifty percent of the members. The membership of the pool was about fifty, representing on an average about 900,000 pounds of wool.

This type of marketing organization has been extensive throughout this country. Utah wool pools have been formed, disorganized and reorganized throughout the history of the state. The practice followed by such pools has often been to sell the clip on the basis of sealed bids submitted by representative buyers on specified dates.

Merits of the wool pooling system were the increased volume of wool handled as a whole and the educational value as to the preparation of wool for market. If a certain clip sold for a premium, other members

were prone to emulate the efforts of the favored producer. A large volume of wool usually attracted buyers, lessened assembling costs, and resulted in a more influential bargaining unit.

Faults of the wool pool often disrupted this type of a cooperative. The pool usually sold its product to dealers who bought the clips at the same price rather than on a quality basis. Prices were based on the poorer quality of wool. Pools had no reliable representative at the terminal wool markets, but must sell to dealers who were in the business for making a profit. Buyers did not always prove competitive. Too often there was a general understanding between them as to a policy of price setting based on their intimate connections with men well posted on market conditions.

Consignment Selling

During years when the wool growers were hesitant about selling their clip to the dealers, the wool was often handled by the dealers on a commission basis. Some dealers allowed the producer the privilege of deciding when his wool was to be sold, as an inducement for patronage. The dealer shrewdly protected himself by dealing on a flat rate commission.

This system of marketing has to a certain extent been used in the formation of the large scale cooperatives. Originally the practice offered an alternative by which the producer could assert his independence and escape the monopolizing practices of unscrupulous wool dealers.

The disadvantage of this system often prohibited its adoption. The dealer who accepted the clip was often a direct wool buyer. It was charged that it was inevitably his wool which was sold during a strong

market and the consignee's wool which was sold when the market was weak. If the producer had the privilege of deciding when his wool should be sold, he was seldom able to guess the right time to sell and he was not in a position to have recent market reports as a guide. Another objection to consigning the wool was the delay to which the producer was subjected in getting the cash for his wool. During strenuous years his credit was often stretched to the limit and his creditors were expecting to be paid after shearing.

Contract Selling

Wool dealers, when they were fairly certain that the price of wool would go higher, purchased wool by contract before shearing time. At the time the contract was signed, a substantial advance of cash was usually made. Despite an almost invariable loss to the grower this practice persists. In the spring of 1933 several large Utah clips were contracted during the early spring for about 12¢. The market later centered around 21¢.

A study made of wool marketing between 1900 and 1931 (25) "shows that for 17 years prices were lower in June, when the bulk of the wool was being sold to dealers, than in March when the dealers began to purchase wool. The study also shows that in August wools were higher than in June in 17 different years. Prices were lower in March than in June only 10 years out of the 32 year period; while August prices were lower than June prices in only seven years during this period."

The market depression during June, often attributed to the terminal market activities of dealers, has induced growers to contract

earlier in the season.

However, years that the dealers are buying wool on contract are generally the ones in which the market is strong and prices continue to raise during June.

An unethical practice attributed to wool dealers, is that of dividing the regions where wool buyers operate in order to avoid competition (28).

Wool Auctions

The success of marketing Austrailian wool is in part due to orderly conducted auctions sales of the wool clip. At regular sales throughout the year, the six wool centers sell a given allotment of wool (29).

An attempt to auction wools was made in Philadelphia, Pennsylvania in 1919 after considerable publicity. It was a failure because there was a comparatively small consignment of wool and because the venture was a speculative rather than cooperative endeavor. The company charged 6% interest on the advances which they made on wool consigned to them, delivered at the warehouse. Commission charges were two cents per pound for selling, with a $\frac{1}{2}¢$ additional charge for grading the wool.

Following the war the government conducted several successful wool auctions to dispose of the surplus wool on hand as a result of the signing of the armistice and the close of the war. The strong market was a contributing factor toward the success of these auctions, as well as the large volume of wool handled.

J. A. Hill (28) and J. F. Walker, (30) recognized authorities on wool problems in this country, maintain that wool auctions are the most desirable means of selling wool. Factors necessary for the success of

wool auctions are large volumes of wool, intelligently placed reserve bids based on market quotations, and a universally accepted wool grade standardization.

Merrian and Wilkins, widely known sheep buying commission firm of the West, initiated a wool auction during the 1934 season. Their headquarters are at the Union Stock Yards at Ogden, Utah. They warehouse and grade their wool at the Ogden Coliseum, home of the Ogden Livestock Show. The plan has not been in operation long enough to be justly analyzed as yet. However, it has the support of J. F. Walker and the wool department of the United States Department of Agriculture. The wool is being graded into five grades, fine, one-half blood,three-eighths blood, one-quarter blood, and braid. The firm will handle about five million pounds of wool this year.

Although the company is a private concern, there is a possibility that it may attain a permanent hold on wool marketing practices of this country. The efforts of the firm will be watched with considerable interest by those who are interested in the wool industry. It embodies the additional feature of being located in the wool growing regions, something which is desirable from the standpoint of local employment and educational value to the sheep men. Clips which were observed at the warehouse, were invariably depreciated in value by the mixture of black wool found throughout the clip. In those clips where the black fleeces had been separated, there were black locks tied into white fleeces. Either indifference or lack of close supervision is the cause of such practices. It is surprising that it should exist after so many years of advise to the contrary.

LARGE SCALE COOPERATIVES

National Wool Warehouse and Storage Company

The Intermountain Wool Growers, an organization of Western wool growers and Chicago capitalists, formed the National Wool Warehouse and Storage Company at Chicago, Illinois in the fall and winter of 1908-9. The company was semi-cooperative, organized to facilitate the marketing of wool at a central market. It did not own any wool of its own. It operates on a commission basis selling wool for its grower members at a cheaper rate than for outsiders.

The efforts of this company to educate the producer as to proper methods of preparing his wool for market, to familiarize the grower with terms of the wool trade and to teach him the market grades and qualities of wool was a feature of worthy advertising hardly equaled since, in the wool trade.

According to John T. Caine III, the company succeeded against the bitter opposition of wool dealers who resented the encroachment of a competitive cooperative wool marketing organization. "My weekly mail usually contained some worthwhile literature from the company," stated Mr. Caine.

Other features of this educational policy were the wool exhibits at the Chicago warehouse. These exhibits were sent into the wool producing regions each year. This policy was used rather than one of extensive soliciting.

Due to an advance of fifty cents per pound on the 1920 wool clip before the market break sent the price to eighteen cents, the company was forced to liquidate in 1925. However, a more extensive support by growers during the succeeding years would have saved the company from

financial embarrassment. The efforts of the National Wool Warehouse and Storage Company were a decided aid to the cause of cooperative wool marketing.

Other Large Scale Cooperatives

After the post-war deflation period, there was a further movement toward the establishment of large-scale cooperatives. Some of the organizations were formed under the encouragement of State Farm Bureau organizations. The following table is a list of such cooperatives as reported by the Federal Trade Commission: (31)

Table #3--Large Scale Cooperatives Organized 1917-1926.

Association	Location	Date of organization
Ohio Wool Growers' Cooperative Association	Columbus, Ohio	1918
Illinois Agricultural Association (wool Pool)	Chicago, Ill.	1919
Iowa Fleece Wool Growers Association	Des Moines, Iowa	1917
Kansas Sheep & Wool Growers Coop. Assn. (Inc.)	Manhattan, Kans.	1920
New York State Sheep Growers Coop. Assn.(Inc.)	Syracuse, N. Y.	1919
Maine Sheep & Wool Growers' Assn.	Augusta, Me.	1920
No. Dakota Coop. Wool Marketing Assn.	Fargo, N. Dak.	1920
Coop. Wool Growers of S. Dakota	Brookings, S. Dak.	1920
Wisconsin Fleece Wool Growers Coop. Assn.	Pewaukee, Wis.	1920
Northern Calif. Wool Warehouse Co.	Red Bluff, Calif.	1920
New Hampshire Marketing Assn.	Manchester, N. H.	1921
Pacific Cooperative Wool Growers	Portland, Oreg.	1921
Southwestern Farm Bureau Wool & Mohair Assn.	Houston, Texas	1921
Virginia Cooperative Sheep & Wool Growers Assn.	Richmond, Va.	1921
Minnesota Coop. Wool Growers Assn. (inc.)	Wabasha, Minn.	1924
Farmers Union Wool Growers Coop. Assn.	Lexington, Ky.	1923
Montana Wool Cooperative Marketing Assn.	Helena, Mont.	1923
West Virginia Wool Growers' Coop. Assn.	Salem, W. Va.	1923
Connecticut Wool Producers Assn.	West Hartford, Conn.	1924
Wyoming Wool Coop. Marketing Assn.	McKinley, Wyo.	1924
Indiana Wool Growers Assn.	Indianapolis, Ind.	1925
Michigan Farm Bureau Wool Pool	Lansing, Mich.	1920
Maryland Farm Bureau Wool Pool (inc.)	Baltimore, Md.	1926

The two most important of these cooperatives were the Ohio Wool Grower's Cooperative Association and the Pacific Cooperative Wool Growers. The former was organized in 1918 with headquarters at Columbus, Ohio. Wool was graded in the association warehouse and sold by the managers of the ware house. Prices were paid according to the average price received during a given period. After becoming established it acted as a sales agency for associations in Michigan, Illinois, and Indiana. This organization now markets its wool through the National Wool Marketing Association. The name of J. F. Walker is associated with the success of this cooperative.

The Pacific Wool Growers at Portland, Oregon was organized in 1921. Its manager, R. A. Ward has been an active proponent of cooperative marketing among wool growers of the Northwest. For his plans he contacted the California Fruit Exchange. Close contact with the market is one reason for his success, in marketing. The success of this cooperative is further based on close contact with its members by a board of directors chosen from the various districts patronizing the agency. The members sell their wool according to a written contract which permits them to withdraw if they wish on certain specified dates. The wool of the members is graded at the association warehouses at Portland and San Francisco. Sales representatives are employed at Philadelphia and Boston. Selling grading and storage expenses have ranged from $1\frac{1}{2}$ to $2\frac{1}{2}¢$ per pound. It is on this basis that this cooperative handles the wool of its members. This cooperative also sold its wool through the National Wool Marketing Corporation until March, 1932.

The Australian Plan in America

The Pioneer Australian Shearing Sheds (35) was organized and incorporated in February, 1915. The purpose was to build the first modern

shearing sheds in the United States built after the Australian plan. Four plants were built and three remodeled in 1915 and 1916 according to the plans furnished by Australians. J. E. Cosgriff, a banker and sheep man of Salt Lake City was president of the company. His efforts in behalf of the system and marketing improvements in general are indeed commendable. W. T. Ritch, a wool specialist from Australia who was well acquainted with practices in that country was in direction of the operations.

Features of the plant at Six-Mile Ranch, located six miles south of Bitter Creek Station, Wyoming are a decided improvement over the average shearing shed of the West. The addition of a bunkhouse, kitchen, dining room, office and laundry, are examples of improvement. It is a well known fact that there are usually no provisions made for shearing shed employees to take a bath , and their sleeping quarters are usually very uncomfortable. The Australian shearing plant provides such improved facilities.

The plant is raised four to six feet above the ground so that a supply of dry sheep will be at hand for some time in case of rain. Also, if the weather is bad the shorn wheep may be kept under shelter until they have become accustomed to their nakedness. This is an essential factor in preventing losses due to exposure. The sweating and catching pens are carefully regulated as to temperature to facilitate the shearing process. The arrangement of the shed enables handling the sheep in a way which promotes considerate treatment. After the sheep is sheared it is pushed down a chute which leads to the tally pens. The shearer is thus able to go into the 8 by 5½foot catching pen through a double swinging door, grasp a sheep by the neck and bring the animal to the well lighted shearing floor

without warding off excited shorn animals in the same pen which often escape through the burlap partition as is usually the case. This practice eliminates the common custom of legging a sheep which often fatally injures the foetus of pregnant ewes.

In handling the wool the belly wool is first shorn and picked up by a boy who places it in a container for the belly wool. The remainder of the fleece after shorn is gathered up and spread out on a slatted table top which may be revolving or stationary. Meantime, the locks and dirt from the shearing floor are quickly swept into a pile. Part of the dirt is shaken from the fleece on the table while it is being skirted. This process is done by experts who separate tags, stained, short, or otherwise inferior wool from the edges of the fleece. The fleece is then rolled with the skin side out and the shoulder wool uppermost. It is then transferred to the wool classer's table where the fleece is examined to determine the grade. Depending upon this classification it is placed in a bin containing similar fleeces; when the bin is full is is opened from behind, the wool is baled and sewed in a burlap container and branded as to owner, grade, and weight. The locks and skirts are graded and baled separately.

At the time the Australian system was being tried in America, a saving of fifteen percent on the freight charges could be realized over the cost of shipping sacked wool. At that time a greater percentage of wool was being baled than it is at present.

In 1920, the last attempt was made to practice the Australian system in this country. According to Hill, the system failed in this country because of a lack of a proper kind of selling system to handle it, because American buyers were not in the habit of buying tags and locks

and because wool dealers made a determined effort to discourage a system which might replace their speculative profits.

Under an organization such as the National Wool Marketing Corporation as we know it today, the Australian prepared wool might have been sold to manufacturers who would have been willing to pay full value for the wool. With a limited supply of each grade of wool it was difficult to attract adequate patronage. Wool dealers took advantage of the situation by taking every advantage to deprecate the system. It is charged that they went as far as publishing false propaganda concerning price returns on wool marketed under the Australian system.

Sheep men also found that manufacturing concerns failed to appreciate the value of the inferior wool. On foreign markets American buyers were in the habit of buying the choice wool and leaving the poorer quality to Belgium, French, and German buyers. Thus the low price paid for the poorer wool made the average price of the Australian prepared clips so low that it was uneconomical to practice the expensive system any longer.

National Wool Exchange

Some of the directors of the National Wool Warehouse and Storage Company instigated the formation of the National Wool Exchange in 1924. The headquarters of the Exchange was in Boston with a branch office in Chicago. The company was owned by growers of the West. It was a private corporation which sold wool for the cooperatives.

Rather than advance money on the wool clip, and risk the fate of its predecessor, the Exchange worked only on a commission basis. However, through the facilities of the Intermediate Credit Banks the cooperatives could obtain advances on the wool of their members.

The National Wool Exchange was a natural outgrowth of its predecessor and to a more limited extent it continued the practice of supplying wool producers with helpful information. It stepped aside for the National Wool Marketing Corporation in 1930.

National Wool Marketing Corporation

In an effort to aid the farmers of this country, the Federal Farm Board aided basic agricultural industries to establish marketing organizations in 1929 and 1930. The National Wool Marketing Corporation was incorporated December 24, 1929. Nine cooperative wool marketing associations purchased stock in the corporation in the spring of 1930. By May, 17 new cooperative member associations were organized. Two more were added in 1931. The following table is a list of these member associations:

Table 4 (32) Member Associations of the Nat. Wool Mktg. Corp.

Member Associations	Year entered
Arizona Wool Growers Association	1930
Cooperative Wool Growers of South Dakota	1930
Iowa Sheep and Wool Growers Association	1930
Minnesota Cooperative Wool Growers Association	1930
Montana Wool Cooperative Marketing Association	1930
North Dakota Cooperative Wool Marketing Association	1930
Pacific Cooperative Wool Growers Association	1930
Utah Wool Marketing Association	1930
Wyoming Wool Cooperative Marketing Association	1930
American Mohair Producers Cooperative Marketing Corporation	1930
California Wool Marketing Association	1930
Central Wool Marketing Corporation	1930
Colorado Wool Marketing Association	1930
Colo-New Mexico Cooperative Wool Marketing Association	1930
Eastern Idaho Wool Cooperative Marketing Association	1930
Lone Star Wool-Mohair Cooperative Association	1930
Michigan Cooperative Wool Marketing Association	1930
Mid-Texas Wool and Mohair Marketing Corporation	1930
Midwest Wool Marketing Association	1930

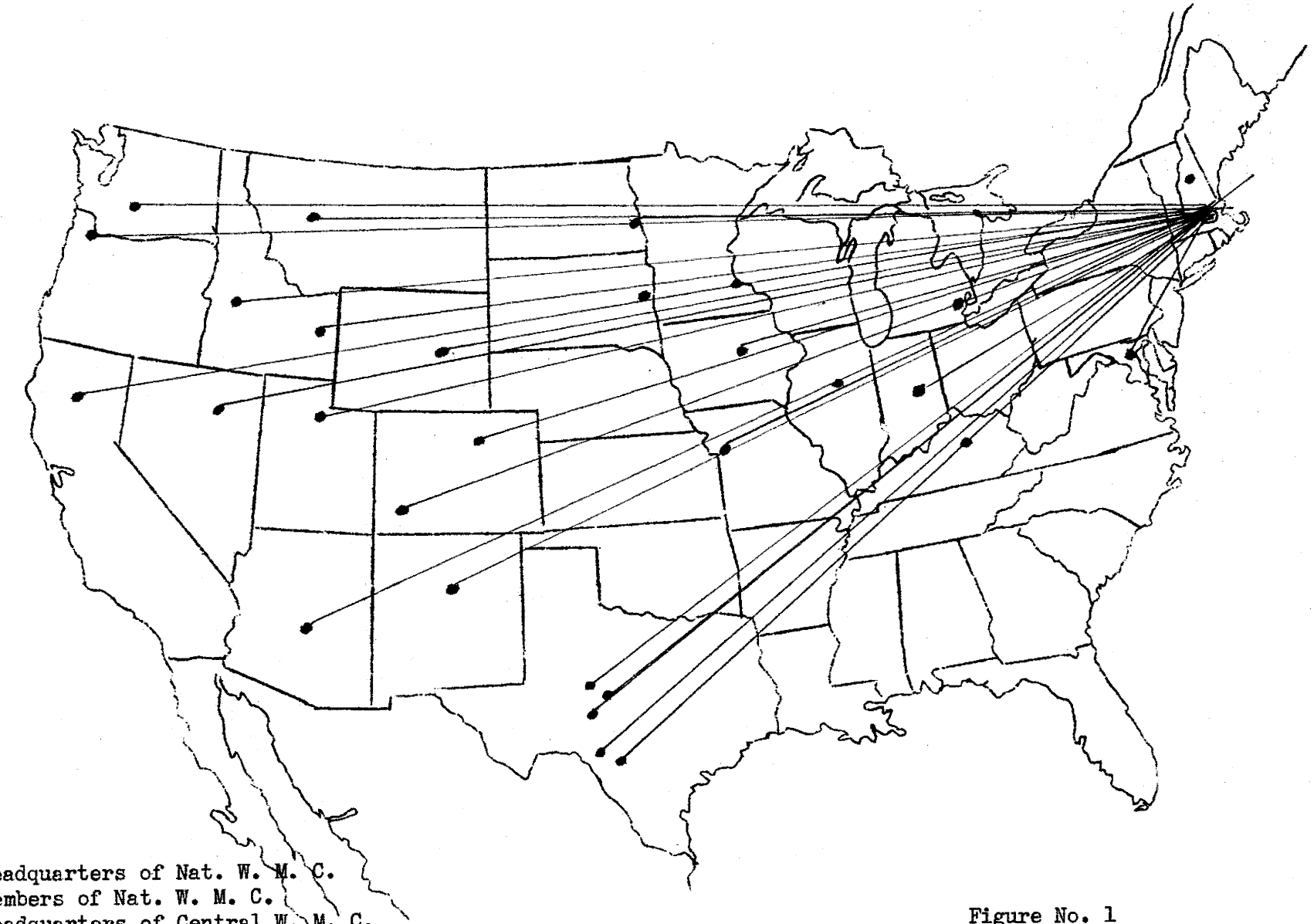
Table 4 (32) Member Associations of Nat. Wool Mktg. Corp. (Con.)

Member Associations	Year Entered
Nevada Wool Marketing Association	1930
New Mexico Cooperative Wool Marketing Association	1930
Oregon-Washington Wool Marketing Association	1930
Sonora Wool and Mohair Marketing Corporation, Sonora, Texas	1930
Southwest Texas Wool and Mohair Marketing Association	1930
United Wool Growers Association	1930
Western Idaho Wool Marketing Corporation	1930
Wisconsin Wool Growers Association	1931
Indiana Wool Growers Association	1931

An idea of the distribution of the member associations may be gained from Figure 1. Eighteen of the associations are located in the Territory states, while seven are located in the fleece states and one in Maryland. The six wool cooperatives which make up the Central Wool Marketing Corporation, sell through the National but do not own any stock. They are located in Kentucky, Indiana, Illinois, Wisconsin, New Hampshire, and Massachusetts. The Wisconsin Wool Growers Association and the Indiana Wool Growers Association joined in 1931, and the Pacific Cooperation Wool Growers Association withdrew in 1932.

The corporation is capitalized for $1,000,000 with which it finances its member association through the National Wool Credit Corporation. Preshearing, commodity, and mill sales' advances are made through these financing facilities to the wool and mohair associations of this country. During the first two years the selling services were handled by Draper and Company wool dealers.

The following accomplishments were determined, by National Wool Council, organized in 1927 to study problems of the wool industry, and by



○ Headquarters of Nat. W. M. C.
● Members of Nat. W. M. C.
□ Headquarters of Central W. M. C.
■ Branches of Central W. M. C.

Figure No. 1
National Wool Marketing Corporation

the Farm Board, as desirable under the agricultural marketing act: (34)

1. The concentration of a sufficient volume of wool in one organization to make it a factor in determining marketing conditions and, through an orderly marketing program, to eliminate, in a large measure, market manipulations which cause drastic price fluctuations and uncertainity in the trade.

2. Development of an agency to provide growers with adequate financial assistance so that they would be free to market their clips through their own selling organization.

3. The establishment of a national organization which, through its research, educational, legal, and other service departments, could represent wool growers of the country in matters of national importance such as the promotion of new uses and new outlets for wool and assistance in developing a national industry program of wool in which all branches of the industry, from producer to retailer, could cooperate.

4. To learn the grade, staple, and shrinkage of their wool. With this information, obtained through expert appraisals of their clips, growers would be in a better position to regulate their breeding practices so as to produce the kind and character of fleeces in greatest demand.

5. The elimination of competitive selling by small cooperative associations.

Figures available as to the amount of wool handled by the Utah Wool Marketing Corporation and the National Wool Marketing Corporation during 1930 and 1931 are as follows:

Table 5—Wool Handled by the Utah and National Wool Marketing Corp. 1930-31

Table #5—Wool Handled by the Utah and National Wool Marketing Corporation 1930-1931

	1930	1931
Utah Wool Marketing Association	10,698,449 lbs.	10,208,454 lbs
National Wool Marketing Assn.	105,787,247 lbs	116,651,805 lbs

An effort to obtain more recent data concerning the amount of wool handled by the National Wool Marketing Association through the Utah Association failed because they were not willing to have figures used at present when the Boston Wool dealers are attempting "underhanded practices to undermine the National."

Present methods of the National are a decided improvement in wool marketing methods in this country. The National must, however, recognize the quality differences existing between wool clips and must accept the present grades of wool established by the United States Bureau of Markets or assist in making public and universal, grades suitable to the wool trade, if it is to firmly establish the confidence of the wool grower. It is only on this basis that the proper market preparation of wool and the subsequent improvement in breeding practices will be established.

Wool Futures Market on the New York Wool Exchange

The failure of an incipient futures market wool exchange in 1923, due to a lack of standardization has been an indication to members of the wool trade that an exchange was not feasable in this country. However, it is of pertinent interest to the wool grower that wool is an agricultural product which is now exchanged on a futures market. This market is the New York Wool Top Exchange, conducted by the Wool Associates of the New York Cotton Exchange, Incorporated. It has been in operation since May 18, 1931.

Interests of the wool industry have for some time expressed a desire to put raw wool on a futures market. The lack of universally

*Statement made by James H. Hopper, secretary Utah Assn.

accepted grading standards has been the hindering factor. The Wool Exchange has solved the problem by trading in wool tops, a semi-manufactured product of the combing process.

Grading of tops offered on the Exchange is done by three of a list of twenty-nine competent representatives of the wool trade, selected on a non-interest basis. Each consignment of tops is disguised as to origin and graded according to its comparison with an arbitrary standard of official types. The following is the original standard, or panel as it is known in the wool trade, representing the range of grades within which tops may be offered on the Exchange:

A1+11%	B1+8%	C1+5%	D1+2%	E1-2%	F1-5%
A2+8%	B2+5%	C2+2%	D2 Par	E2-5%	F2-8%
A3+5%	B3+2%	C3 Par	D3-3%	E3-8%	
A4 Par	B4-1%	C4-4%	D4-8%		

This system of grading eliminates the trade controversy as to the description of grades used in the count system. For explanation, the letters A-F represent six grades of wool according to diameter of fiber existing in fine and half-blood wool. They are 70's, 66's, 64's, 60's, and 60's/58's, respectively, according to the count system. The numbers 1, 2, 3 and 4 represent the lengths: full staple top; good one-half staple top; ordinary French top; and short French top, respectively. The percentage figures are variable. They represent the degree of variation which is due to differences in color; kind of combs used and percentage of nibs and vegetable matter present; strength; handle; bad hair; and presence of pulled wool. On each of these factors a sample is graded -1%, Par, or -1%. A lot will be rejected if it grades below -8%, consists of uneven top sliver

that would interfere with manufacturing, contains more than 4% oil, contains carbonized or contaminated wool, or consists of wool containing mineral oil. Thus a lot is valued on its actual quality.

For certification by the Exchange, two sample bales of wool tops, of five to six pounds each, representing each lot of 5,000pounds or less, or three samples representing each lot of 5,000 to 20,000 pounds, are presented by the dealer in tops with a request for inspection. Delivery contracts may then be made for any month during the year.

In regulating transactions on the Exchange there is considerable technical detail which must be observed. In general, one must realize that the Exchange brings buyers and sellers together. It is operated purely on a commission basis. Its value to an industry is primarily a protection to dealers and manufactures, and is attained by hedging. However, it must be remembered that on any exchange there are individuals who transact business on a purely speculative basis. It is neither possible nor desirable to eliminate these speculators. They assume the risk of price fluctuation, (which markedly exists in the wool industry), and thus they make hedging possible for those who deal directly in wool.

Hedging on the part of the dealer, or a cooperative growers organization, as it has been done in the wheat industry, may be done similarly with wool. A grower might decide before shearing time that the price of wool for an immediate sale is favorable, bub he is not able to receive a contract on his wool. The Exchange offers an alternative. He can sell wool futures on the basis that one 5,000 pound contract, which is an Exchange unit, will hedge one carload of grease wool (37). If at shearing time the price of wool has dropped, he can sell his wool, and cover his

futures sale by buying back the amount of futures which he had sold. Because there is a direct correlation between the price of raw wool and tops, the grower will make a profit when he buys back the futures at a decreased price.

The manufacturer may hedge an order for cloth by buying futures at a rate which will insure a fair profit. He will then be assured that an increase in the price of tops will not affect the financial margin which he must have for the successful operation of his business. He will be able to operate on the basis of his knowledge of his business without considering the uncertain element of speculation. Ultimately, a futures contract will be transacted on an exchange, but for the purpose of hedging there need be no exchange of product. The transaction must be backed by evidence of reliable securities. Thus an exchange substantially protects all transactors by requiring a refundable financial deposit, or margin by those who deal on the exchange. At the present time it is believed that government supervision will further eradicate certain undesirable features of an exchange, namely, transactions by inexperienced individuals, transactions by inadequately financed individuals, and price manipulation.

Wool growers will be vitally interested in the Exchange since it offers protection and stimulation in the wool trade despite an unfavorable market outlook; since it results in a more stable collateral; since it offers an immediate price index of actual transactions; and since it puts middleman operations on a fair profit rather than speculative basis. These are claims of the Exchange which merit the attention of the wool growers of the nation, as well as the fact that wool is sold on the Exchange on an actual quality basis.

The success of thus evaluating wool on the Exchange should result in a more satisfactory and acceptable method of grading and evaluating raw wool when it is sold by the producer. This is an essential feature of efficient wool marketing toward the attainment of which all cooperative wool marketing efforts have long been directed.

Wool Grades in the United States

From foregoing statements concerning wool marketing, it is apparent that acceptable wool grades are of primary importance in the efficient marketing of wool. The following discussion of wool grades in the United States is presented to enlighten the reader as to the progress which has been made in establishing wool grades in this country. However, the wool trade is slow in accepting these standards, and thus hinders the use of acceptable grades in the wool marketing industry.

A representative writer for the National Wool Warehouse and Storage Company, of Chicago stated (38) in 1914 that one of the primary needs of the wool grower was a standard of grades of wool. In December, the National Wool Growers Association, at a convention in Salt Lake City, adopted a resolution to encourage the formation of standard wool grades which would be practical and acceptable in the raw wool trade.

These relatively uneventful incidents in the dynamic industry, are suggestive of a vital phase of the history of wool marketing relative to wool grades. To comprehensively introduce this subject of grades of wool in this country, I must briefly correlate a history of wool grades with a relative history of the sheep industry. For authority I shall base this phase of my paper on an article written by L. G. Connor. (39) It will be taken for granted that the reader understands prevalent wool grade terms. Modern terms will be used freely in elucidating the historical development of wool grades.

According to Mr. Connor the percentage production of the various grades of wool in the U. S. was approximately this in 1925: 80's--2%; 70's---and 64's---30%; 60's and 58's---20%; 56's---30%; 50's, 48's,

46's---15%; and 40's and 36's---3%. It is the fluctuation of these percentages that has been an instrumental factor in the nomenclature of wool grades. Factors which have induced such fluctuations, have been: 1. An introduction of Merino blood at various times; 2. Crossbreeding to meet a more intensive type of sheep raising; and, 3. Market price changes in favor of one or the other grade extremes.

Considering the factor of Merino importations, reveals the fact that the prevailing breeds of sheep among the colonies were mainly Down breeds and some Long wool breeds which had been brought from England by the colonists. The wool ranged from medium to coarse and was known as "native" at the time Merino importations began shortly after 1800. Due to a lack of pre-war shipping facilities, decided emphasis and exhorbitant prices resulted in favor of fine wool. (40) It was natural that at such a time the terms for wool grades such as "common, quarter-blood, half-blood, seven-eighths blood, and merino," were current in the wool industry, based on the percentage of Merino blood in evidence. A lull in Spanish Merino production existed at the time of the war of 1812, but with the introduction of the super-fine Saxon wool in the twenties it again received significant emphasis. Such importance gradually dwindled until Vermont breeders directed their efforts toward a more uniform and heavier fleece production. Fineness was somewhat sacrificed. About 1860 this wool was known as a grade "X" or what is now about a low 70's. Spanish Merino wool was graded "XX", and Saxon wool, "XXX." Select grades of super-fine Saxon wool known as "Pickneck" and "Picklock were not recognized after 1870 and 1890, respectively.

From 1870 to 1900 Merino sheep were received with enthusiasm in the

Western range states to breed up the inferior grade of sheep originally introduced from Mexico. Cheap feed, abundant range and large scale production favored wool production and gave impetus to the use of the choice wool producing Merino breed.

As to the second factor, crossbreeding, it was making gradual headway in the New England sections following the war of 1812. A limited scale of production favored a more intensive method of husbandry. Mutton as well as wool became a source of revenue. As a result, Down and Long wool breeds, because of their early maturity, and greater size became predominant among Eastern flocks. Beginning in 1865, a similar condition prevailed in the Middle West. Since 1900 Western sheepmen have also been including the lamb crop as an important phase of their business. Greater overhead investment due to public domain curtailment, necessary land purchases, and more expensive equipment in some cases necessitated the sale of a lamb crop as well as a wool clip. (42) That such a trend was universal may be verified by a statement made by A. W. Elliott before the American Association of Woolen Worsted Manufacturers. (43) "Australia in 1911 produced 85% of Merino wool and 15% of crossbred wool. In 1921 Australia produced 65% of merino wool and 35% of crossbred wool.**** In 1911 the clip of the United States was about 300,000,000 pounds and the production of 60's quality and above was about 50%. In 1921, the clip of the United States was about 250,000,000 pounds and the production of 60's and above was only about 40%." Mr. Elliott further states that only in South Africa has Merino wool production held its own. (Japan and Russian statistics would probably show a trend favoring merino production due to home industry expansion.) Because fine wool is used in the higher grade of cloth, and because it is more expensive to produce than coarser

wools, it will generally maintain a premium market price and Merino sheep may be expected to hold their own as to numbers raised in the so-called Territory regions of this country despite mutton breed competition.

Further correlating these conditions with wool grades, brings out the fact that a great amount of wool began to appear on the market from the Down breeds, which corresponded in diameter of fiber with one-half, three-eighths and quarter blood Merino wool. The Down breeds however, contained no Merino blood whatever. The old terms based on Merino breeding persisted and still do so to-day. Low quarter is a more recent addition, and braid too, the latter a purely descriptive term. During this evolutionary period of grade terms, the word "medium" has been used to include the three intermediate grades, one-half, three-eighths, and quarter blood. No. 1, No. 2 and No. 3 have also been used in respective order for the same grades.

The United States Bureau of Economics has made an arbitrary correlation of wool grades according to diameter and length which embodies the traditional American terms and the more universal Bradford system. The Bradford "count system" derives its foundation from the numbers on worsted yarns, which is the number of hanks of 560 yards each, produced by one pound of wool top.*

* Table 6 U. S. Official Standards for Wool Grades (41) (See next page)

Table 6 U.S. Official Standards for Wool Grades

U.S. *1. Bradford	U.S. *2. blood	Length: Clothing	Length: French Combing	Length: Combing	Pulled wool: Clothing	Pulled wool: Combing	Australia and New Zealand
64's, 70's + 80's	Fine	Under 1¼ inches	1¼ - 2 inches	Over 2 inches	AA	Delaine	Merino
58's + 60's	½ blood	" 1¼ "	1¼ - 2¼ "	" 2¼ "	Fine A	Fine	Comeback
56's	⅜ blood	" 1½ "	1½ - 2½ "	" 2½ "	A Super		½ blood
48's + 50's	¼ blood	" 1½ "	1½ - 2¾ "	" 2¾ "		Medium	
46's	low ¼ blood	" 2 "	2 - 3 "	" 3 "	B Super		¾ blood
44's	common						Cotswold or Lincoln
36's + 40's	braid				C Super	Coarse	

*1. Adopted July 1, 1926
*2 Adopted 1923

From the table one can see that grading according to length has also been standardized. Although the wool dealers demand slightly more length than is given in the official grades of combing wool, reliable authorities deny the sincerity of such demands. The longer wools are premium wools and thus the wool grower must insist upon the acceptance of the United States Official Grades of Wool as long as they have official sanction.

The terms for these grades are not used universally by the wool trade today. A report of a 1934 clip handled by the National Wool Marketing Corporation is a pertinent illustration of this fact: fine clothing,fine bucks, bright French Utah, Dark French Utah, and Bright ½ Station were the grades used. A further exception of the use of the standard wool grade terms, the pulled wool industry, the terms of which I have included as an auxiliary explanation of the U. S. standard grades. This discrepancy is understood when one knows the washing process which pulled wool undergoes before it is taken from the slat. This wool has an average shrinkage of twenty seven per cent. It is therefore almost as difficult to grade extensively, as is scoured wool. Thus we have the more general grades which have retained the terms of the packing industry.

It must be understood however, that the Bradford system is most prevently accepted and facilitates the international wool trade.

Grading according to the shrinkage of wool although practiced only in research and by a few progressive sheepmen who carefully study their flocks and products, may in time attain significant consideration.

Various estimates of wool shrinkage made between 1914 and 1929 are given in table number seven.

Table 7 —Wool Shrinkage Values (41)

1914 Estimates of the National Wool Warehouse and Storage Company

State	Fine	½ Blood	3/8 Blood	¼ Blood	Common and Braid	Nat. Assn. Wool Mfctrs.1929.	Hill's fine Estimate
Montana	64-65	61-62	55-57	51-53	46-48	64	61
Utah	66-67	61-63	57-59	53-55	48-49	64	63
Idaho	67-68	62-64	58-60	54-56	48-51	63	64
Wyoming	68-70	63-65	58-60	54-56	49-50	65	65

Experiments made by John A.Hill, Dean of Agriculture at Laramie, Wyoming, reavealed the fact that Wyoming wools had an average shrinkage of three percent less than the minimum estimate made by the National Wool Warehouse and Storage Company. Dean Hill's deductions were that a similar rating might be more exact for the other states. He also listed the report of the National Association of Wool Manufactures for 1929.

Conclusions to be drawn are that considerable advancement in the formulation of universal wool grades has been made. There is yet room for improvement, however, especially as to an established standard or quick means of determining shrinkage and an adoption of existing standards. The panacea hoped for, is that with the availability of these grades will evolve an efficient use of them both in marketing and breeding practices.

The United States Warehouse Act

In order that the reader may know the value of the United States Warehouse Act to the wool industry, a brief discussion of the act as it concerns the wool industry is included.

There have been years when the wool grower, after weathering a disasterous season of lavish extravagance and underestimated expenses, has relied always upon his wool clip to re-establish his far-stretched

bank credit and maintain his social prestige. Why he has become an easy prey of economic speculation at the mercy of Boston wool dealers, is obvious. His urgent need for cash prompted him to sell his clip soon after shearing. Well aware of this fact, the sufficiently financed wool houses manipulated a temporary market depression at this time. Perhaps three months later, from their full-stocked warehouses, issued a steady supply of wool on a normal textile-mill market.

In an effort to aid the agricultural marketing situation, the United States Warehouse Act was made a part of the law on August 16, 1916. Concerning the marketing of wool, it was proposed by exponents of the bill that wool producers, who wished to hold their wool until prices were favorable rather than sell on a glutted market at shearing time, could store their wool in reliable local warehouses. Financial advances could be made against the wool and it would remain under the personal surveillance of the grower until sold.

Another appeal favoring adoption of the plan was the economy of financing local warehouses in comparison with those located in the large cities. Advocates of local grading of the wool clip, favored the plan because it made possible personal observations of wool grading. Each producer could thus be personally enlightened as to the quality of his wool. Improper preparation of the wool for market or the failure to eliminate light shearing individuals would be obviously apparent to the most "hard-nosed" sheepman.

The work of handling and marketing the wool would be assumed by local employees and managers. The sheepman would accordingly be relieved of further time and money spent in marketing his product, and could devote himself toward continuity of his pastoral operations.

His wool could then be marketed in orderly sequence during the year; the ills of seasonal speculation could be eliminated; and an increase in price after shearing time would accrue to the benefit of the grower.

The figurative result of this legislative gesture, left the sheepman holding the sack--a wool sack in this case. The reason was elementary. The bonded warehouses which were to prove themselves a marketing asset, were scattered throughout the Western wool producing region. Textile mills were located in New England. When these mills wanted a car of wool, it would not be consistent economics to expect their representatives to flounder through a Wyoming blizzard in search of a suitable raw product. As an alternative they placed their orders with the business entrenched wool dealers. If these wily speculators had failed to procure Western or domestic clips as they are called, they wired their capable, buyer-representatives in Australia. Resulting foreign shipments accentuated the plight of harassed sheepmen of the West, and almost nulified the first constructive effort of the Federal Bureau of Markets in behalf of the woolgrower.

The intrinsic value of the bonded warehouse has not been lost to the sheepman, however, although most of the warehouses, which now serve the wool producers, are operating in the large cities with a resulting high rent cost; after relatively unimportant alterations they embody the essentials services of the original provisions of the U. S. Warehouse Act, namely, receipts are accepted as reliable form paper, discounted by the Immediate Credit Banks, credit or funds are issued against them accordingly. Also government inspection is an assurance that warehouses are financially reliable and insured against fires. They are at any time subject to Federal inspection.

A recent development in the wool trade aimed at unethical practice by wool dealers is taken from the News Digest (44). "A proposed license

for dealers in wool and mohair, which would become effective Jan. 1, 1936, will be considered at a series of public hearings starting July2, the Agricultural Adjustment Administration announced. The license would be designed solely for supervising trade practices and selling charges. In addition to scattered local buyers, there are about 275 wool dealers in the country. According to trade estimates, 12 to 15 of them handle 85 percent of the business. The trade centers in Boston, Mass. The license as proposed would provide for an advisory committee made up of 5 grower-members elected by production districts and 4 dealers-members chosen at a general election. It would be administered by an official named by the Secretary of Agriculture. Administration costs would be borne by the Adjustment Administration. Twelve trade practices involving transactions between dealers or between growers and dealers would be listed as unfair. Two are of particular interest to growers. The first is the sale of growers' wool or mohair on commission by any member of the trade who buys or sells wool on his own account. The second is deducting an arbitrary flat discount for "tags" or other off-sort wool or mohair without reference to the actual condition of the lot being sold. Listing this practice as unfair would prohibit making the same deduction for lots with no off-sort wool as for lots with a huge percentage of off-sort. A provision of the proposed license would require each licensee to confine transactions in wool and mohair either to consignment or to outright purchase and sale. This, and other provisions of the proposed license would relate only to wool or mohair acquired on or after Jan. 1, 1936. Commitments for wool or mohair made before that date would not be affected. The schedule of hearings follows: July 2 and 3, Boston; July 8 and 9, Denver: July 11 and 12, Billings, Mont.;:July 15 and 16, Portland, Ore.; July 18 and 19, San Francisco: July 23 and 24, Salt Lake City; July 29 and 30, San Angelo, Texas; August 1 and 2, Kansas City, Mo.; and August 5 and 6, Columbus, Ohio."

CONSTRUCTIVE SUGGESTIONS

To supplement the activities of the National Wool Marketing Corporation and the Utah State Agriculture College Extension Service by short educational courses for a few selected men representing the sheep industry of the state is the first suggestion. The courses could be given at the Utah State Agriculture College by the Extension Service.

At opportune occasions, wool grading, wool scouring, and wool judging demonstrations to be presented before audiences of wool growers is the second suggestion. The demonstrations could be given by college students, Future Farmer and 4-H club members.

To encourage the adoption of a plan of sending apt wool students or young sheep growers to Boston with the wool clip, (a caboose ticket to be furnished by the railroads as livestock producers are accommodated) to promote more intimate relations and a closer understanding between producer and manufacturer is the final suggestion.

It is granted that the details necessary for the realization of these plans would entail considerable time and effort. Nevertheless, they seem justifiable and feasable to the writer.

SUMMARY

Under the encouragement of the Latter-Day-Saint church the wool manufacturing industry of Utah was the foremost in the West during the early history of this state.

Cheaper transportation rates resulting from the advent of the railroad opened up competition to the more modern wool manufacturing concerns of the East and resulted in a decline of the early industry in Utah.

A frequent turnover and limited specialization has been the means of establishing a stable industry in the manufacture of blankets and knit goods within the past few years.

The early establishment of wool dealers to perform the necessary commission work for the wool manufacturing industries of New England, has resulted in a slow development of cooperative efficiency in the marketing of wool due to the conflict of objectives between the dealers and cooperatives.

Government intervention is facilitating the establishment of centralized cooperative wool marketing organizations which may help to stabilize the woolen industry in the United States.

There are yet some fundamental requisites to successful wool marketing which are not adequately met by the National Wool Marketing Corporations. Disposal of the producers clip on a strictly quality basis as to shrinkage, condition, length, and fineness would meet these requirements.

CONCLUSIONS

I. Expansion of small scale wool manufacturing in Utah within the past seven years is an indication that the industry can successfully compete in the West with large scale Eastern producers for three reasons: (1) It is possible to produce goods relatively comparable in price, (2) the soliciting type of distributing and sales service appeals to a rural public, (3) the turnover rate, or time in which it takes to bring returns on a given investment, is materially increased and inventories of accumulated goods are decreased by an "order" system of marketing finished products.

II. Raw wool is not yet marketed for the producer in a satisfactory way, because standardization and selling the product on a quality basis has not become adequately established.

III. The gradual education of the wool grower as to the price relationship to the quality of wool must accompany cooperative marketing efforts to result in a more satisfactory system of marketing wool in the West.

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