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The Impact of Foreign Trade on the Western States Wool Industry

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THE IMPACT OF FOREIGN TRADE ON THE WESTERN STATES WOOL INDUSTRY

by

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INTRODUCTION

The Problem

Wool production in this country has decreased greatly in the face of constantly increasing demands for wool. The decrease has taken place largely since World War II. Wool is a very essential product to a nation during war time. Therefore it is necessary that the decline in production be stopped if possible.

It is the contention of the wool producers that their trouble comes largely from foreign competition and the lack of a high enough tariff rate on wool. This study was undertaken in an attempt to discover to what extent foreign trade effects the wool-producing industry. The study was restricted to the western states. These states come closest to being comparable to Australia and the other Southern Hemisphere producing areas.

Not long after beginning this study it became apparent that there were several other important reasons for the decline in wool production other than foreign imports. From that point on the problem was enlarged to include all economic factors which have influenced the wool industry's decline. The factor that appears to be the most important is the land problem. There is a definite lack of cheap land. Many of the other factors are dependent upon the land problem. Another important factor which is closely related to the price of wool is the increasing competition from synthetic fibers. Some of the other important factors influencing the decline in wool production are the lack of trained labor, high initial investment requirements, poor methods of marketing

and distribution, increasing competition from other types of agriculture which are more profitable, and the lack of initiative on the part of the wool producers to attempt to improve their competitive position in the 139 years since the passage of the first wool tariff.

I have found my material in many sources. The principal ones are the library at Utah State Agricultural College, the United States Tariff Commission, the Department of Agriculture, the Superintendent of Documents, the Textile Economics Bureau, Wool Bureau, Inc., National Wool Growers Association, Professor Milton A. Madsen, and several unnamed agencies and firms.

The History of Wool

Just when or where wool was first used as a fiber is not known. The history of wool reaches back before the time of written records and is closely interwoven with man's slow advance into modern civilization. Sheep have figured prominently in religion, tradition, and symbolism. Throughout the ages the laws of great nations have included powerful measures for the protection of sheep and wool commerce, so important to national wealth.

Wool has played a great part in the development of modern civilization. It provided a covering for man and enabled him to live in comfort in areas which have provided the highest degree of civilized advancement. Without wool the settlement of much of northern Europe and North America would have been almost impossible. Empires have been built on the production and manufacture of wool.

One of the first recorded efforts we have in breed improvement was carried on by Jacob. Early breeding for improving wool production appears to have originated with the Romans. They, being luxury loving people, demanded the finest and softest fibers to produce their garments.

Credit for improving fleece production should go to the Greeks of Tartenia. Their golden and red sheep were widely used in fleece improvements in other countries. The Moors in Granada developed this breed into what is known today as the Merino. The Germans of Saxony get credit for increasing the fineness of wool fiber. The credit for increasing the size of the wool-bearing surface of sheep goes to the French of Rambouillet. The American flock master greatly increased the total weight of fleece. The result of these improvements has been to increase the body weight of sheep from about one half to twice its original weight and from 30 per cent to 50 per cent in fleece weight.[1]

1. The sources of information for this section are as follows: James Westfall Thompson, A History of Livestock Raising in the United States, 1607-1860, Agricultural History Series No.5, (United States Department of Agriculture November, 1942) and Arthur Cole, The American Wool Manufacture (Cambridge: Harvard University Press, 1926)

THE PROTECTIVE MOVEMENT

Background

Sheep were first brought to the American colonies early in the 17th century. The numbers of sheep increased slowly at first. Natural conditions did not favor sheep here. Also there was no established market for wool since there was no manufacturing establishment to use the wool. Under these conditions wool became so short in Massachusetts that its exportation was prohibited from 1675 to 1681.

Homespun cloth was made in the colonies from the available wool. The finer cloth was imported from England until just before the Revolutionary War. During the Revolutionary War the domestic industry could not meet the demand and wool cloth was smuggled into the colonies from England by way of France. In the pre-Revolutionary War days the mercantilistic system was in full swing. This restricted the development of the wool industry in the colonies. Because of this the goods of household manufacture made up the largest part of the goods in use for many years.[1]

The first large scale manufacture of wool took place at Ipswich, Massachusetts in 1792. In 1794 machinery was first applied to wool manufacture on a large scale. This machinery was introduced by two English workers, Arthur and John Schoefield. They established a factory at Bayfield, Massachusetts. At this time the greatest difficulty in the way of woolen manufacture was the poor quality of wool and its small supply in the colonies.

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1. Arthur Cole, op. cit.

The growth of wool production and sheep raising during the early period of American independence was slow. In 1802 a large flock of fine Merino sheep was imported from Spain. This slow development continued until the Embargo Act of 1808. The act was a great stimulant to the industrial development of the United States. From 1809 to 1811 many thousands more sheep were imported.

The embargo marked the beginning of a great development of wool production and manufacture. The needs of the Army during the War of 1812 added to the demand for wool. Broadcloths, which had formerly been imported from England, had to be replaced by domestic sources. The result was that by the end of the war the industry's output was 3 to 4 times pre-war production. But the proportion of cloth made in factories in relation to homes was still small.

The Embargo Act, added to the War of 1812, prevented British competition until the end of the war in 1815. During 1815 heavy British imports again began to enter this country. The wool-manufacturing industry was still in the infant stages and could not compete successfully. Further, wool producers were still developing their flocks and land and were in no position to compete with foreign imported wool and woolen products. As the result of the increased imports of foreign wool and woolens, both producers and manufacturers began to demand tariff protection.

The History of the Wool Tariff

From that point on the wool tariff has been the subject of more protracted and bitter controversy than any other commodity which has been given tariff protection in the United States.[1] There are several

1. Mark A. Smith, The Tariff on Wool, (New York: The Macmillan Co., 1926), pp. xvii-xxii.

reasons for this. Wool is an article of commerce and the raw material of one of our largest manufacturing industries. For many years wool has been imported in large amounts since domestic production has not been large enough to meet demands.[1] Also the wool tariff schedule has occupied a conspicuous place ever since the Civil War as a typical instance of adjustment between the duty on a raw material and on a product made from it. This furnished a conflict between the growers and manufacturers as well as both groups against the consuming public.

The duty on raw wool is one of the oldest and most effective of the agricultural tariffs. Since the United States has consistently imported a substantial part of its wool consumption, this duty, like that on sugar, but unlike the purely nominal rates on other agriculture staples, has had an appreciable effect on imports, production, and price.

Protection did not, however, create the domestic wool industry nor is the most substantial part of it dependent upon the tariff. Other more important factors are responsible for the major part of wool production in this country. Growers have generally demanded and received substantial protection in all but a few instances.

The result of the increased British competition after the War of 1812 and demands for protection was a tariff. The first tariff on wool was enacted in 1816. This act gave wool the same protection given to cotton, 15 per cent ad valorem.

The demand for wool was increasing at the same time the farmer's foreign market for other products was falling off so that there was double incentive to increase the size of flocks.[2] Between 1816 and

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1. This has been the case consistently since the passage of the Tariff Act of 1816.
2. The war in Europe was over at this time and the Europeans could again devote time to production of their own food.

1820 the situation changed completely. After the close of the War of 1812 in 1815 the American market was again open to England. The English had built up a surplus of woolens during the war and these were exported to America in great quantities at low prices.

The American mills began to close and prices declined. The Tariff Act of 1816 was passed to stem this flow of imports. The tariff was not effective since there was no minimum valuation fixed on wool. Imports were not checked by the tariff as planned but the post-war depression in 1819 did. Demand was drastically cut and this resulted in the reducing of imports. By 1828 the manufacturers were in a position to compete with foreign goods.[1] Various wool manufacturers gave testimony before the Committee of the House of Representatives on Manufactures in 1828 to this effect. They showed clearly that the industry as it stood in 1828 was on such a scale that the difficulties arising from lack of skill and experience, unfamiliarity with machines and methods, and other such temporary obstacles no longer had an influence in preventing growth. American ingenuity had developed new machinery and methods of operation which cut both labor costs and production costs. With these the American industry could produce at costs as low as the English could if it could get wool at a similarly low price as foreign competitors.

One manufacturer said that the industry was not yet firmly established in this country but he knew of no reason why we could not manufacture as well and as cheaply as they could in England, except for

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1. F. W. Taussig, The Tariff History of the United States, (New York: G. P. Putnam's Sons, 6th ed., 1914), pp. 68-108.

the difference in the price of labor, for which, in his opinion, we were fully compensated by other advantages. He thought the industry's main difficulty was not the cost of manufacture, but the great fluctuations in the home market. This was caused by the irregular and excessive foreign imports.

The high prices paid for labor were, in one manufacturer's opinion, beneficial to American manufacturing industries. With higher wages a better selection of hands, who were capable of and willing to perform a much greater amount of labor in a given time, was possible. American manufacturers also used a larger share of labor-saving machinery than the British.

The testimony seemed to indicate that the industry had reached a point where it might, if left alone, sustain itself. But many manufacturers wanted higher duties. They said the displacement of household products by those of factory products was necessarily a gradual process and wool manufacturing was slower to reconvert than cotton.

In the face of this and after much bitter political fighting, the Tariff Act of 1828 was passed with very high rates on wool and woolens. This tariff was the result of a plot by the forces backing Jackson against the forces backing Adams. The result was a tariff that no one wanted. The rate was increased from the 15 per cent ad valorem of the 1816 Act to 4 cents a pound plus 40 per cent. This is only one example of the terrific pressure the tariff on wool exerts. It was the center of the fight over the Tariff Act of 1828. Wool also played an important part in the presidential elections of 1828.

Protective legislation had small influence in the introduction of wool manufacturing.[1] It was a greater aid to cotton manufacturing.

1. Wool manufacturing had been artifically stimulated in the post-war period because of pent up demand.

The events of the period from 1808 to 1815 may be considered to be the equivalent to effective, though crude and wasteful, protective legislation. The effect, as compared to the absence of growth before 1808, showed that protection was necessary in some form to stimulate the growth of the early woolen industry. But only moderate rates existed until 1828 and by then the industry was firmly established.

With the end of the British depression in 1830, dumping upon the United States market had stopped. It had, though, been curtailed at an earlier date. As the industry settled down to its competitive position with England, the manufacturers still operating were capable of holding their own. The tariff acts of the 1830's generally were lower than the excessively high Tariff Act of 1828. The rate of the 1832 act was the same but all wool valued at 8 cents a pound or less was admitted free. The Act of 1833 called for all rates exceeding 20 per cent to be reduced to 20 per cent by yearly reductions to July 1, 1842.

In the period from 1830 to 1860, the wool production industry was in a state of great prosperity and progress. Wool production expanded greatly during the 1830's. This growth took place largely in the eastern states and this period marked the high tide of popularity for the fine wool breeds of sheep.

During the twenty years before the Civil War, 1841-1861, the industry expanded into the Middle West with the western area beginning to decline. From 1830 to 1837 the price of wool was rising both in the United States and in the world market. The wool producers and manufacturers in both England and the United States were very prosperous. Exports from Australia had only just started. Under these conditions the United States sheep industry found itself in a favorable position.

Since only a small amount of wool was shipped from the Midwest, the eastern growers reaped the benefits. Imports of both raw wool and manufactured wool increased under the compromise tariff but domestic woolen manufacture still grew in this period. The increase in manufacturing was partly at the expense of the household woolen industry which was on the decline. The number of sheep increased from about 12,000,000 in 1830 to about 19,300,000 in 1840.

The Panic of 1837 brought a sharp break in the price of wool. Although there was some recovery in the next two or three years, the price of wool was lower during almost all of the following decade than it had been between 1830 and 1840. A higher tariff was passed in 1842 when the Whigs gained office. The rates were for 5 per cent on wool valued at 7 cents a pound or less and 3 cents a pound plus 30 per cent on all other wool. This tariff act was based partly on the deficiency of federal revenue after the Panic of 1837. After the Democrats came into power in 1846 a lower tariff was passed with a considerable reduction in rates. The rates were set at a straight 30 per cent on all wool. A remarkable period of prosperity took place during the period between 1846 and 1860 and little agitation took place on the tariff question. In 1857 the tariff was cut again. This act placed all wool valued at 20 cents a pound or less on the free list; all other wool was charged 24 per cent.

The decade of 1840 to 1850 saw the wool-growing industry in the West at the point of great expansion. This was a period of great internal improvement. Wool from the West could be shipped east by way of the Erie Canal and later by the newly built railroads. The population was still sparse in the West and few people had enough capital to purchase a large flock of sheep.

As the western flocks grew those in the East decreased in size. The urban areas were growing in the eastern population centers. It became more profitable to use the land for dairying and vegetable farming to feed the increasing population. The sheep industry was being forced west where more land was available and the population was less dense. Expenses in the eastern area increased as the value of the land went up. Fodder was more expensive as compared to the cost in the West. The sheep growers turned to mutton breeds to augment profits and wool growing was reduced to a minor place in the diversified agriculture of the East.

From 1853 to 1856 prices were much higher, but the West's expansion in wool production was slower than in the low price era after 1840. Production of grain and meat for export was more profitable than wool producing. Also the railroads were being expanded into the West thus greatly cutting transportation costs. The Irish Famine, the abolition of the English Corn Laws, and the Crimean War all added to the rising prices of farm products in the period from 1847 to 1855. The Panic of 1857 caused a temporary decline but high prices prevailed, on the whole, through the panic.

The Civil War interrupted the natural trend. The wool-producing industry was revived in the eastern states and the western expansion and dominance was postponed. The Tariff Acts of 1861, 1862, and 1864 were mainly passed for revenue purposes. The rates were adjusted in favor of the manufacturers rather than the growers. The demand for wool as the result of the Civil War was very great which resulted in unparalleled prosperity for both growers and manufacturers.

The Tariff Act of 1864 somewhat checked the imports of raw wool and woolens but imports increased when it became apparent that the Tariff Act of 1866 was to have higher rates. The volume of imports

was great just prior to the passage of the 1866 act. This was also due to the natural post-war activity. This caused the market for both raw wool and woolens to collapse in the late part of 1867. The end of the Civil War had not stopped the expansion of the industry or dimmed the hopes of sheep owners for continuation of their remarkable prosperity. The price break in late 1867 sent sheep to be slaughtered in great numbers. Great numbers of sheep were also driven to the West. The number of sheep decreased in the period of 1867 to 1871. The decline was from about 35,800,000 to about 22,400,000 head of sheep. The decrease was greatest in the New England and Middle Atlantic states.

A convention was held in Syracuse, New York, in 1865 composed of both manufacturers and growers.[1] They agreed to stand together on the compensatory system and higher rates on wool. The 1867 schedule contained a much more detailed classification of wool than any preceding tariff law and raised the rates very materially. After the war the wool industry greatly expanded in the Far West. The sheep men followed the frontier and found there the last region that could be utilized. It was a territory better adapted to the industry than any formerly used. The arid nature of the country precluded a rapid development of agriculture but livestock could be kept profitably.

The period after 1870 saw a great industrial expansion in the United States. Great waves of immigration doubled the country's population between 1870 and 1900. Two transcontinental railroads were completed shortly after the Civil War. All this aided in the development of Western agriculture. There was also expansion in wool production going on in Australia and Argentina during this period to bring in more competing raw wool. Prices were low in relation to other agricultural prices.

1. Haldor R. Mohat, The Tariff on Wool, (Madison, Wisconsin: Tariff Research Committee, 1935), p.12.

But two events resulted in higher prices in 1871 and 1872. One was the decline in the number of sheep after the Civil War. The other was the Franco-Prussian War. These factors led to a shortage in wool and to increased demand for wool. There was again a slight decline in 1873 but prices and production again went up in 1879 to 1880 as the result of the revival of business on the resumption of specie payments. Great stocks of wool from the Southern Hemisphere depressed the price somewhat after that.

A notable development in the wool-manufacturing industry took place in the period from 1860 to 1890. This was the expansion in the manufacturing of worsted materials from 3,000,000 pounds in 1860 to 10,000,000 pounds in 1890. This was of benefit to the growers and would have overcome the Southern Hemisphere imports if it had not been for the increased use of cotton and shoddy in wool manufacture.

From 1870 to 1885 the wool-growing industry increased in the areas of the West and declined in the other areas. From 1870 to 1880 New England and the Middle Atlantic states, which had already declined, saw little change. The states of the Midwest suffered a steady decline in wool production. Kentucky, Tennessee, Virginia, and West Virginia were the leading Southern states in wool production. Ohio was the leading state from 1850 to 1880, when California took the lead. From this point on one of the states of the West or the Southwest held the lead. By 1900 several Rocky Mountain states had passed Ohio. The tariff likely slowed down the decline in the East and the Midwest.

A comparison of domestic and foreign prices showed a difference of 8 to 11 cents per pound on comparable grades of wool in favor of the domestic producer. The Tariff of 1867 was aimed particularly at the

Mestza wool of South America. Imports of carpet wool from South America continued but this wool was almost wholly non-competitive with the domestic clip. The greatest competition came from Australia. The per cent of foreign wool being consumed was less in this period than in the days before the Civil War. Most foreign wool was coming in as manufactured goods rather than in the raw state, dress goods being the largest item.

The tariff was decreased 10 per cent in 1872 on all rates and raised again in 1875. By 1883 the government had gained a surplus of revenue so the tariff rates were cut with rates being slightly less than those in the act of 1867. The Tariff Act of 1890 had very slight changes so that substantially the same rates were in effect from 1867 to 1894. Wool prices were low during this period except on two occasions but prices of other agricultural goods were high enough to divert the farmers away from wool production. The natural advantages held by the West, though, were so great that production there increased. But in this same period production in other areas decreased.

The surplus from the Southern Hemisphere production areas increased competition while more cotton and shoddy was being substituted for wool. These factors mighthave depressed prices if it were not for the tariff and increased demand and population. The tariff was now much higher than it was before the Civil War. It exercised a much greater influence than it had ever done. The United States wool producers benefited by substantially the amount of the duty. Yet events and facts other than the tariff were more influential in determining the events in the industry.

Wool was on the free list only during two periods after 1816 up to the turn of the century. The first period was in 1861 and the second was from 1894 to 1897. In the latter case the manufacturers were not

subjected to any drastic cuts in their production. The wool producers, on the other hand, suffered by reason of the removal of the tariff, but the crisis in the industry was not caused entirely by the removal of the wool duty. The price trend since the mid-1880's was down with an increase shortly before the new act. The Tariff Act of 1894 was passed after the Panic of 1893 and was accompanied by an industrial depression. The number of sheep was rapidly reduced in all areas except where there was no means of getting the sheep to railroads.[1] The decrease in the number of sheep amounted to 10,000,000 from 1893 to 1896. There was such a drastic cut in the value of wool that many sheep were butchered for the pelts and tallow. The low price led to neglect of the sheep and many died of starvation and disease.

This again was not entirely the result of wool being put on the free list. It was the culmination of a series of events which had been lessening the profits of sheep production. The industry had fallen behind its foreign competitors. The competitors had changed their agricultural methods, production methods, and shipped only the best fleece. In short, they made changes in their animal husbandry to correspond with changes in world competitive conditions.[2]

Higher prices and production began to return by 1897 in both the wool-producing and wool-manufacturing industries. Even this and the higher prices that resulted from a protracted drought in Australia did not increase the number of sheep except in the Rocky Mountain area.

In the East the dairy industry was firmly entrenched and the demand for dairy products was increased as the populated areas grew. Some former wool-producing areas were taken over by dairies, such as in Wisconsin.

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1. These areas were Idaho, Montana, and Wyoming.

2. Mark A. Smith, op. cit., pp.110-120.

The populated areas also needed other foods so other wool-producing areas were taken over to produce corn and wheat. On the Pacific Coast the agriculture industry increased along with great increases in fruit raising which tended to crowd out sheep. The Rocky Mountain area grew until 1902 when the maximum carrying capacity of the ranges in that part of the country was reached.

The concensus of opinion among economic historians is that the tariff was the not predominant influence in shaping the course of events in the wool-growing industry during the years of 1889 to 1912. After the Civil War the duty on wool was more assistance than before to the growers. But its influence was not the only one. There were several other ruling factors. The competition from other kinds of farm enterprise limited the increase of farm sheep husbandry over most of the country. This resulted in the opening of the Western ranges and caused the industry to expand into the Far West and Rocky Mountain areas. Then there was the great expansion of wool production in the Southern Hemisphere and extensive imports from there which caused many sheep owners to turn to mutton and lamb production to sustain their profits. Also during this period cotton and shoddy were being increasingly used by the textile manufacturers with a tendency to keep down the price of wool and limiting production. It is impossible to say how much the duty contributed to the prosperity of the industry. Likely, in the light of the free wool period of 1894 to 1897, the decline in the industry would have accelerated in the absence of a duty.

Around 1900, with increased rates on manufactured goods, imports of manufactured woolens fell off to a low point. Raw wool imports increased. The United States wool growers for the first time in many years were met with greater competition from raw wool than from foreign wool made into cloth. The improved wools from Australia and New Zealand plus the greater

demand for coarse wool made it possible for the first time since the Tariff Act of 1867 to import large quantities of wool from South America. Worsted manufacturing gained in importance until 1905. It consumed greater amounts of wool than any other part of the industry. Cotton prices were low from 1890 to 1900 and thus encouraged manufacturers to substitute cotton for wool when possible. Also the trend was toward lighter fibers. The per capita consumption of wool was less in 1900 than it was in 1860.

With the passage of the 1909 act things were left almost the same as they had been under the 1891 act. There were 42,000,000 sheep in 1909 compared to 43,000,000 in 1891. The clip was 311,000,000 pounds, or 4,000,000 pounds more than in 1891. The Rocky Mountain area still retained the lead in production which it gained with the passage of the Tariff Act of 1897. It was becoming apparent, however, that the reduction of range land was the future tendency.

Another free wool period was entered on December 1, 1913. The passage of this bill was not unexpected since the House of Representatives passed a free wool bill in 1911. The wool-producing industry was not too greatly damaged during this period of free wool from 1913 to 1921. The period of time involved was too short to really tell what the probable results of a permanent free wool policy would be. The free wool period of 1894 to 1897 was a time of general economic unrest and the real effects of the policy were much in doubt. Economic conditions were stable in 1913 but the war obscured the long run influence of a free wool policy. It could be said that the free wool period did not accelerate the tendency toward a smaller wool output which had existed for several years prior to 1913 nor did it lower the price of wool substantially. This was largely due to the war scare in Europe.

The number of sheep was increasing in the Far West on irrigated farms. This tended to give the wool-producing industry a permanent place because of the utilization of by-products and contribution to soil fertility. Most of the wool growers were receiving returns from joint production of wool and mutton great enough to induce them to stay in the business.

World War I greatly interrupted the wool industry on a world basis. It removed the Central European countries from the market. The French and Belgian textile areas were occupied by the German armies, and the British and American industries had to be reorientated and readjusted to war conditions. Government controls became imperative due to the essential nature of the wool industry. The price began to go up fast as the war demand increased. New markets were opened to American and British producers. Also a drought in Australasia and Argentina caused the supply of raw wool to be short. Wool prices shot up and they reached a higher price in the United States than they did in Britain.

For several months before the outbreak of war in Europe the United States wool industry was in a stagnant position. Then orders came in for military fabrics from foreign governments and a boom period began. This was a period of unprecedented consumption of wool by American mills and all records for high wool prices were broken. Imports increased rapidly and reached a record high of over 500,000,000 pounds in the fiscal year 1915 to 1916. The domestic consumption for the year was 800,000,000 pounds but domestic production remained about the same, or about 300,000,000 pounds.

Due to British controls we no longer received the part of the Australian clip we formerly received. Some of the clip was permitted to enter the United States but under restrictions as to where the produced

goods were to go so as not to aid the British enemy. Prices continued to rise through 1917 and the spring of 1918. Government regulation took over on July 30, 1917. The price set was higher than the price in England since the United States government assumed controls at a much later date than the British government did. The controls in the United States were imposed at a price very near the highest price paid during the war. A bad break in the United States price would have involved great losses for owners of stocks of wool and woolens. These surpluses had been built up during the war. The government wanted to relinquish controls as soon as possible. So the United States government instituted a series of auctions to dispose of its holdings. The minimum price set corresponded closely to the price the British were selling similar grades. The better grades of wool sold rapidly, the medium grades sold slowly, while the lower grades were a drag on the market for a long time. There were coordinated efforts made by both the United States government and the British government to stabilize the market. It was remarkable in the face of all the uncertainty and with such a great surplus of wool that the price level remained as high as long as it did.

The woolen and worsted manufacturing machinery in the United States was kept fully occupied during 1919. The demand for fine goods was strong. The wool clip was over 300,000,000 pounds, or a little larger than the 1913 clip. Imports were greater than before except for the fiscal year of 1915 to 1916 and the total consumption of the United States mills was nearly as high as any of the war years.

The crash came in the spring of 1920. A reduction in demand was the result of a "consumer strike." This became pronounced in the later part of 1919 and resulted in the cancellation of orders in early 1920. This

effected both the United States and the British mills. The Eastern wool firms suddenly stopped buying in May of 1920 and for several months wool was almost impossible to sell. The price of sheep went down 50 per cent and it became hard to renew loans on sheep. Failures were great in the wool industry. Sheep were slaughtered in great numbers. By the beginning of 1921 the industry entered a more depressed state than it had been in for many years.

The war conditions plus government controls led to a great surplus that endangered the position of the producers and owners of stocks of wool and wool goods. The influence over prices by the British and United States governments delayed but could not stop the coming of the evil day. This great decline in prices led to the Emergency Tariff Act of 1921. The resultant tariff when passed had provisions that were almost prohibitive from an administrative point of view. It excluded imports almost completely. Stocks piled up in bonded storage waiting in the expectation of lower permanent rates. There was a great surplus problem. There were some 200,000,000 pounds of wool imported before the passage of the act and most of the 1920 clip was unsold when the 1921 clip was shorn. So this surplus was added to the war-time wool the government was still disposing of and on top of this the United States mills consumed much less than they did in the days before the war. The manufacturers also had a surplus on hand.

Since imports were almost excluded the domestic surplus was partially cut down. Upon the revival of activity in the wool-manufacturing industry in 1921 the price of raw material rose and the flocks, which had been much reduced in 1920 and 1921, were slightly enlarged. The emergency tariff amounted to a virtual embargo on wool imports and probably helped the domestic growers to dispose of their surplus. The economic conditions

during this period were so confused that it is difficult to draw definite conclusions.

The general business trend now was on the upturn, thus promoting a price increase for wool. Prosperity began to enter the wool-producing industry in 1922 and early 1923. This prosperity did not last long, only to the later part of 1923 and the early part of 1924. A depression in the production and manufacture of wool started and became rather severe during the middle of 1924. There was a slight recovery in the later part of 1924. The 1924-1925 depression on wool was considered the worst one since the crisis just following the Civil War.

Imports of raw wool and manufactured items were large after the Tariff Act of 1922. The sheep industry throughout the years from 1922 to 1925 was recovering slowly from the slumps of 1920 and 1924-1925. For nearly a year after the passage of the Tariff Act of 1922 the difference between the price of wool in Boston and in London was not too far from the amount of the duty plus the cost of freight and insurance on the imported wool. The price difference created by the duty somewhat stimulated the output of wool.

It is difficult to determine the effect of the wool duty during the period from 1922 to 1929. The duty was levied during the depression which followed the war and which had run its course. The later part of the 1920's was a period of business prosperity. The wool growers shared in the recovery and certainly were benefited by the tariff. However, other and more fundamental causes fostered the general economic improvement without which the sheep industry could hardly have experienced revival. The number of sheep increased from 36,695,000 in 1923 to 53,321,000 in 1932. The size of the clip rose from 272,395,000 pounds in 1923 to 440,454,000 pounds in 1932.

The Hoover administration in 1928 promised "tariff equality for agriculture." It was certain that wool growers would ask for higher duties. The Smoot-Hawley Tariff Act of 1930 increased the principal duty on raw wool from 31 cents to 34 cents per scoured pound. It also raised the compensatory and protective rates on manufactured goods proportionally.

The effects of this act were such that the imports of wool fell considerably. Though it is hard to say how much this fall was due to the tariff or to the general business depression since it is quite likely imports would have fallen off even in good times. In addition to the more immediate effects upon imports and prices the duties on wool in effect after 1921 were undoubtedly partly responsible for the increase in domestic production during the period from 1921 to 1931.

The National Association of Wool Manufacturers and the National Association of Wool Growers have dominated the lobbying and other tariff-making activities. These two organizations, as a rule, have given each other mutual support since 1865. This mutual support is evident when careful examination is made of the lobbying activities of these two organizations in support of the wool tariffs passed since 1864. This was very true in the early 1930's.

The wool industry is usually considered to be in a more favorable position relative to agriculture during times of war. This is because of the critical nature of its product and the huge demand for wool textiles. This was not true of wool production during World War II. Although the industry was not in a favorable position in 1939, it was apparently better off than during most of the period from 1940 to 1946 in relation to alternative enterprises. In 1939 the fourth largest clip on record up to that time was recorded. The wool-producing industry was well on

the way to recovery from the depression. Wool and lamb were included in government programs during the depression. Their recovery was fairly rapid.

In the years after World War II production of wool steadily decreased in the United States as demand for wool grew rapidly. It appeared that higher prices would be paid for wool for some time to come. Even in Australia by 1950 prices at the auctions were 40 per cent to 50 per cent above the previous years' closing levels. Then by the middle of 1950 and with the coming of "war" in Korea the government announced it would enter the market and buy wool. Even before this there was a slow buildup of government stocks of wool. This was done after World War II due to the fear of being cut off from the supply in Australia.

At the end of World War II the British government held about 3,000,000,000 pounds (grease basis) of wool. This was held by the United Kingdom-Dominion Wool Disposal, Ltd. This organization is known as JO, for joint organization. The United States, through the Commodity Credit Corporation, held 500,000,000 pounds of wool (grease basis). The world trade picture for wool was considered dangerous. It was feared this vast surplus would be a glut on the market and that world prices would be depressed for several years to come. It was estimated it would take 13 years to get rid of the surplus.

But a combination of factors pushed the demand for wool to the highest level it had ever reached. This demand was the result of style changes, world-wide population increases, and as the result of filling the war shortages of wool in Europe. The demand was so great that it even exceeded the current production of wool. The 13-year surplus was almost completely gone by the beginning of the "war" in Korea. The Commodity Credit Corporation's stocks were entirely exhausted and JO had only 150,000,000 pounds left. This meant that from then (mid-1950) on wool consumption had to be covered by current production.

Production of wool in the United States became a problem. In pre-war days the United States production covered from 80 per cent to 90 per cent of this country's consumption of apparel wool. Since the demand for wool in the United States had gone up as it had elsewhere after the war while the production in the United States was taking a big dive, we had to begin to import close to 75 per cent of civilian needs to cover demand.

In October of 1952 the wool growers had a "Buy American" rider attached to the Defense Production Act. The Munitions Board issued a ruling under the act that created a partially protected market for domestic wool. The Secretary of Agriculture was asked to request the Tariff Commission to see if imports were hindering the price support program. The Agriculture Department was under pressure to slap on a flexible fee system on imports as called for under the Agriculture Adjustment Act when imports of wool interfered with the price support program. The Treasury Department was also under pressure. The wool growers had asked the Treasury Department to impose counter vailing duties on imports from Argentina and Uruguay, on the grounds that shipments there were being subsidized by their governments with preferential exchange rates. The Treasury Department, though, refused to budge.

The year of 1952 was one of slump in the textile industry. This slump hit everyone, the growers, the dealers, and the manufacturers. The slump came right on the heels of the biggest boom the wool industries ever had. Wool prices went up from 42 cents a pound in 1947 to $1.00 a pound in 1951. It was nothing to see Cadillacs drawn up to sheep pens. Then the price dropped to about 50 cents per pound. Many of the wool producers were caught sitting on their clip looking for higher prices. Some 20 per cent of the 1951 clip and three-fourths of the 1952 clip was still in

growers' stores. The growers held out, even then, for more than the support price of 54 cents a pound.

The Agriculture Department did not want wool. Its fingers were singed from the last time it was in the wool business. So two powerful forces faced each other. The wool growers wanted to unload their stocks at higher prices and called for higher tariff rates. At the same time the Agriculture Department did not want to be unloaded upon. The wool growers met opposition from another source, also. The woolen manufacturers said higher prices meant higher raw material costs for them. The dealers were afraid tariff hikes would result in a cut in the use of wool. They were raising the bogie of synthetic competition which would come as the result of higher wool prices. It was their point that since synthetics were well established and running neck and neck with wool in the matter of price, any increase in the price of wool would give synthetics the push they needed to inundate the market. This would hurt domestic growers as well as foreign growers.

The imposition of fees or quotas by the Tariff Commission would violate our trade agreements. The result of this would have been to get us into nasty diplomatic wrangles with Australia and New Zealand. Wool is the Commonwealth's chief dollar earner. So any such action would cause a storm in London as well. The result might have been some retaliatory action upon some key United States exports. As for the "Buy American" rider, it is acceptable since it is not covered by the trade agreements. That is, defense buying is exempt from the rules.

It was the opinion of some Washington observers that the United States wool industry was fighting for its life via the tariff route. The basic economic factors (the rising labor costs and more expensive grazing acreage) to say nothing of the inroads of synthetics raised a question about the

future of the industry. State Department officials say that under the conditions then a more reasonable national policy would have been to encourage imports, not to discourage them.

Wool became the hottest tariff case to confront the Eisenhower Administration when it took office. There was much at stake. The whole network of reciprocal trade agreements negotiated since the war were in danger. The Administration efforts to liberalize Western trade would be greatly hindered. Also the future of the United States wool-growing industry was at stake.

Why was the problem so serious? The United States domestic wool clip had fallen off from 210,000,000 pounds (scoured basis) in 1941 to 120,000,000 pounds (scoured basis) in 1952. Imports now supply three-fourths of the domestic consumption needs. Also, despite the falling domestic output, the Credit Commodity Corporation has accumulated a 100,000,000-pound wool stockpile under the price support program. Synthetics were cutting into the demand for wool.

The wool growers were asking for a special 15 cents a pound fee on top of the present 25½ cents tariff on imported apparel wool.[1] The growers pointed out that Section 22 of the Agriculture Adjustment Act requires the Tariff Commission to recommend additional protection it finds necessary when imports are interfering with the wool price support program.

The Agriculture Department wanted to dispose of up to 40,000,000 pounds of wool in 1953. To do this the Assistant Secretary of Agriculture, John H. Davis, asked the Tariff Commission to recommend a 7 cents a pound additional duty on imported wool. By this increase Davis hope that the

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1. Carpet wool is free since it is not produced in the United States like other wools.

Commodity Credit Corporation could avoid any new wool purchases during 1953 and perhaps rid itself of half of its old holding.[1]

The wool growers, who wanted a 15 cent increase, said they were stunned by the Davis request. Despite the present 25 1/2 cent wool tariff imports have been making steady headway in the United States wool market accounting for 71 per cent of the United States consumption in 1952 compared to only 60 per cent between 1946 and 1950. The wool men said the tariff should be increased at least 12 cents but they wanted a 15 cent raise.

For Eisenhower, who has the authority to raise tariffs whenever domestic support programs are in danger, the Davis proposal provided a tough problem. To accept it would be to go back on the Administration's announced program to liberalize the United States trade policies. To refuse it would be to jeopardize Republican votes in the thinly populated Western sheep-raising states and to aggravate the Commodity Credit Corporation's surplus problem. If Eisenhower gave in and raised the tariff from 7 cents to 12 cents other industries would have also asked for more protection.

High quality Australian wool, adding to the present tariff, then cost more than the domestic wool. So wool users who opposed the tariff increase argued that any increase in the domestic wool prices would be actually self-defeating. They argued that an increase in wool cloth prices would decrease consumption farther and increase the use of synthetic fibers. The congressional policy, made under pressure from growers, was to try to stimulate domestic production to 360,000 pounds yearly. This did not seem economically wise to opponents of the tariff increase. They said growers were in

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1. With wool consumption in the United States falling from 738,000,000 pounds in 1946 to 472,000,000 pounds in 1953, the price support program had cost the United States taxpayer $92,200,000 in the 10-year period from 1943 to 1953. It was the greatest loss incurred on any storable commodity. USDA Bul 119, 7.

trouble trying to produce two-thirds of this amount. To them it looked like it was time to lower production goals.

The wool producers argued that falling prices, rising costs of labor and transportation, and shrinking pasturage had exposed them to slow strangulation by foreign competition. They cited the falling wool production figures.

The Agriculture Department sided with the growers in saying imports were interfering with price supports. As long as production ran under 360,000,000 pounds of wool (uncleaned basis) the Agriculture Department had to support wool at 90 per cent of parity. The growers were storing wool with the Commodity Credit Corporation due to sagging prices and competition from abroad. The Commodity Credit Corporation in its effort to reduce its stocks 40 per cent cut wool prices by 10 per cent on September 1, 1953, to get stocks moving.

The wool manufacturers opposed an increase in tariff rates since it would increase domestic wool prices. They saw the main competition coming from synthetics and not from foreign competition. This was the reason for the decline in wool production in their opinion. They thought that an increase in the tariff then might price wool out of the market.

The New England manufacturers were the most outspoken opponents to a tariff increase. Many of the mills were old and unsuited to the use of synthetic fibers. Nor could these old mills be easily adapted to the use of synthetics. So these mills stood to lose the most from a wool price increase. This was the first time the manufacturers found themselves on the other side from the wool growers.

There was also powerful backing from abroad in opposition to a tariff hike. A half-dozen nations warned the State Department of instant

repercussions. Australia threatened to withdraw from GATT.[1] The United States reciprocal trade agreements were negotiated under the name of GATT. If the wool tariff went up it would set off a chain reaction around the world. The British would have to reinstate the Commonwealth Preference Tariff for Australian wool. That in turn would lead to other Commonwealth producers demanding compensation. This would mean an increase in duties on imports competing with their products. Such a move by London would be certain to lead to retaliation by other nations. Also there would be intangible consequences to most of the trading nations of the free world. They have pinned their hopes for achieving an expanded world economy on some liberalization of the trade policy of the United States. A unilateral duty increase on one of the major United States imports could dash the freer trade idea.

This is how the wool-producing industry stood in 1954. Production was still declining. World and domestic demand was still increasing. The Administration had a problem to solve. This survey of the history of the tariff in relation to the wool-producing industry demonstrates very clearly that several factors have influenced the wool-producing industry. The wool growers maintain that their trouble comes from foreign competition and too low a tariff rate on wool. Some manufacturers say the trouble comes from synthetic competition. But this survey has shown other factors such as labor costs, shortages of cheap land, general business conditions, competition from other agricultural products, and increased investments. Regardless of what may be the true reasons we are faced with the fact that wool production in the United States is decreasing in the face of increasing demands for wool.

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1. General Agreement on Tariffs and Trade.

Arguments For and Against a Tariff

There are several reasons for a tariff on wool. One would be to exclude or tax imports and in this way raise the price of domestic wool. Another would be to preserve the domestic industry so that the nation can become more self-sufficient in time of war. It also encourages a greater utilization and development of American land, labor, and capital. The tariff will reserve the home market largely or entirely for United States producers.[1]

It has been claimed by protectionists that tariffs maintain a high standard of living. This is not altogether true according to sound economic principles. We have a high standard of living in spite of the tariff and not by virtue of it. Our natural resources, vast territory, and seemingly unlimited opportunities for future development have given us an advantage which we can enjoy over foreign countries.

The truth of the matter is that tariffs are trade barriers. The United States is a creditor nation and in order for the United States to receive payments she must change her tariff policies. A foreign country, in making payments to another, has to either ship gold to its creditor or give goods and services in excess of those obtained from the creditor in order to establish a balance of payments. The United States tariff policy has been making payments impossible. We seem to be practicing a form of the mercantilistic system.

The consensus of opinion of the writers on the wool tariff is that it has not been the predominant influence in shaping the course of the industry but has been overshadowed by other and more fundamental forces.

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1. So long as there is a tariff on raw wool the domestic manufacturer will insist upon both compensatory and protective rates on imported wool manufactures.

Wool growing has been affected principally by the development of the nation. The factors involved are the large increase in population which increased the demand for wool and the great exploration of the nation's resources. These developments have forced the main industry to the West with the frontier, made sheep raising subordinate to other types of farm enterprise elsewhere, subjected it to severe competition with other pastoral industries in the West, and shifted the chief emphasis from wool growing to lamb production even in some sections of the range area.

The increased use of substitutes and competitive textiles, such as shoddy, cotton, silk, rayon, etc., has also tended to restrict wool consumption and production. The expansion of wool production in the Southern Hemisphere has furnished a supply of relatively cheap wool. This has resulted in more competition for the domestic growers and it is harder for them to compete successfully in the face of his growing handicaps and high costs.

It is difficult to say how much the tariff has affected the prosperity and output of the domestic industry. It appears certain that domestic prices may have averaged much lower and wool production may have been somewhat lower during most of the period before World War II had it not been for high duties on wool.

The duties on wool are of two kinds. There are those intended to benefit the wool grower and those intended to protect the manufacturer. The person who pays for the higher price on wool due to the duty in the first instance is, of course, the domestic manufacturer. The cost is then passed on to the jobber, wholesaler, retail merchant, and ultimately to the consumer.

The net effect of the wool duty has been to divert the industry from more to less productive occupations. It is likely that a large part of the wool industry would survive but the less efficient portion would probably be

diverted to other channels by the removal of the tariff. The real loss to the nation as the result of the tariff is the maintenance of an inefficient portion of an industry.

The parties interested and influenced by the tariff are very diverse. One is the domestic producer. Those who are principally interested in the duty are the growers of the Western range. To most other farmers, even those who raise a few sheep, the duty can be of little direct benefit. Also, since only one out of 11 farms has sheep, the farmer is generally affected as a wool consumer rather than as a producer of wool.

The consumer includes not only the domestic producer but the public as well. The domestic manufacturer is directly affected by the duty since it increases the cost of his raw material. Therefore, he demands compensatory duties on imports of manufactured goods to offset the increased raw material costs.

The ultimate consumer, that is, the person wearing and using the manufactured articles, is burdened by the duty since manufacturers and distributors generally pass the increased cost due to the tariff along to the final purchaser. The United States consumer consequently pays an indirect tax roughly equal to the amount by which the tariff increases the price of domestic and imported wool in either the raw or the manufactured state.

The importers are also interested in the tariff on wool and wool products. The exclusion or reduction of wool imports diminishes the business of importers and they have opposed the tariff. These protests, however, have been given little consideration.

Also, there are the foreign parties who are influenced by the tariff. A duty operates either to exclude imports or to increase their costs to the

United States manufacturer, in each case it restricts the market for foreign producers and exporters in the United States. In theory the protection should encourage greater domestic production. These foreign interests are, as intended, adversely affected by the duty levied by the United States.

Of the arguments in favor of protection, none has been more frequently or more sincerely urged than that of protection for infant industries. Causes which prevent the rise of the industry and render protection necessary are not natural and permanent causes, not such as would prevent permanently, under a state of freedom, the growth of the industry. Aid may be necessary at the start due to new machinery which requires skill and experience not on hand or found in other areas of production. So, by the use of legislation, the manufacture can be encouraged by the use of duties on imported goods. The industry, in all likelihood, would become established eventually. The legislation only speeds the process.

This country was largely agricultural in nature around 1800. There was very little knowledge of industry by very many people. England had developed sooner and had a very definite advantage. The country remained agricultural in nature up until the Embargo Act of 1808. The agricultural prices were high due to continuous war in Europe. Imports of manufactured goods were high since the prices on them were low. So there was no need at first to build industries.

The need for protection in the then young country, which was yet underdeveloped, became necessary largely at the end of the War of 1812. Then during the stage of transition from a purely agricultural economy to a more diversified industrial condition, which coincided here with a period of great change, made the establishment of new industries peculiarly difficult. At first not much was gained by protection. By 1828 the tariff was effective but by then many of the industries had grown up.

The character of the people had reduced the time for the transition of productive forces to manufacture comparatively easily. Also the shock to economic habits during the restrictive period from 1808 to 1815 prepared the way for such a transition.

The American people displayed a great deal of mechanical genius early during this period. The political institutions in existence in the United States, the high average intelligence, the habitual freedom of movement from place to place and from occupations, all made the rise of the existing system of manufacturing at once more easy and less dangerous than the same change in other countries. We can no longer, though, consider the wool industry an infant industry.

Another argument used is the home market argument. This was impressed upon the minds of the people due to the War of 1812. It demonstrated the possible inconvenience, in case of war, of depending upon foreign trade for the supply of articles of common use.

Protection can also be used to influence other nations in their trade policies toward us. We can use tariffs in reciprocity to get other nations to lower their tariffs.

By 1840 the young industry idea lost its strength in this country. The new idea was to protect American labor from competition of less highly paid labor. This was a new trend. Up to then the argument had been that high wages presented an obstacle in the way of successful establishment of manufacturing here. The idea of high wages vs. low wages is misleading. It is the productive capacity that counts. Generally high wages go with skills and high productivity. The question of wages should be studied in the light of the respective productive capacities in relation to the cost of the labor.

The last major argument for the tariff is for revenue purposes. This, of course, was very important in the early history of this country. Today

the funds collected on duties are very small in reality, in relation to the whole governmental income.

The only just argument for a protective tariff on wool today is the one for national defense. We need to maintain domestic production in case of war. Wool is a very essential item to a nation in time of war. For this reason alone the tariff can be justified. The tariff alone is not enough. The industry must make some effort to help itself to be able to really justify the tariff.

The wool growers say there should be a protective tariff so they can maintain the value of their investment. This protection is made under the implied powers of the Constitution for the protection of property. Also the tariff will increase sheep husbandry. This in return will direct more of the population and capital into agriculture, and thereby strengthen the relative importance of the latter in the national economy. It is argued that the stimulation of sheep husbandry keeps land in use that would otherwise go to waste. The land is one of our great resources and should be used to great advantage. Also sheep growers improve the land for other purposes. The tariff makes it possible for the United States to be less dependent upon foreign sources for an important raw material which is needed in the national defense. This all sounds satisfactory, but the facts are that sheep production has been declining since World War II even with tariff protection.

It might be worth while to mention some of the undesirable consequences of a tariff on wool. First, a wool tariff has burdensome effects upon the consumer of woolen goods. The cost of this necessary product is higher to the consumer than it would be otherwise. The duty has an adverse influence upon the wool-manufacturing industry. The maintenance of a duty may even hold dangers for the wool producers themselves. An artifical price stimulation almost invariably has a weakening effect upon the producers of a commodity.

It implies improvement. It can lead to less efficiency. Such is the result in the wool-producing industry in the United States.

When a nation allows industries to move freely as they will, unhampered by tariffs and various other legal and artifical restrictions, regional production and business are developed along natural lines.

Neo-Classical Theory

> The neo-classical economist provided a theory (relative to the effect of a tax on the price of a taxed commodity) which has served as the hypothesis in most attempts by economists and statisticians to solve the problem of tariff incidence. The fundamental elements of the theory are as follows: (1) The more urgent the domestic demand for the taxed commodity--that is, the more necessary it is to the American consumer--the more nearly will the domestic price rise by the full amount of the tax. (2) The greater the increase in the quantity of the commodity offered in the domestic market from home (untaxed) sources as a result of a given change the less domestic price will be affected. (3) The greater the change in the quantity offered from foreign (taxed) sources, the greater the rise in the domestic prices. In other words, this theory makes the effect of a duty on the price of the taxed commodity primarily dependent upon (a) the elasticity of domestic demand, and (b) the relative elasticity of the American and foreign portion of the supply.[1]

Piquet's Survey

A study was made by Howard S. Piquet on the effects of the removal of the tariff completely.[2] He estimated that the largest dollar increase in imports in the event of overall tariff and quota suspension by the United States would be in the following products: apparel wool, sugar, butter, earthenware, cattle and beef, linseed oil, woolens and worsteds, fresh frozen fish fillets, and watches in that order. But of the items with the largest estimated percentage increase in imports wool or woolen products are not listed.[3]

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1. Haldor R. Mohat, op. cit., p.95.
2. Howard S. Piquet, Aid Trade and the Tariff, (New York: Thomas Y. Crowell Co., 1953).
3. This survey was based on 1951 conditions.

The Present Tariff Rates

The following is a list from the tariff schedule relating to wool and wool products. Estimates are made regarding the future prospects if tariffs would be removed.[1]

U. S. Production: $260,000,000 (estimated)

Imports: $543,854,152

Ratio, imports to production: 209 per cent

U.S. Exports: $157,894

Duty: 8¢ lb. to 37¢ lb.

Ad valorem equivalent: 15 per cent

Par. 1102, 1106 Apparel wool (finer than 44's)

Sources of Imports

Australia	$ 286,888,816
Uruguay	105,109,556
South Africa	58,210,227
New Zealand	36,297,968
Argentina	27,307,244
Chile	13,991,292
Peru	7,258,253
Brazil	2,100,984
France	2,010,495
United Kingdom	1,536,887
All other	3,142,430

This wool is the most directly competitive with the United States wool production since all but about 7½ per cent of the domestic wools are of grades finer than 44's.[2] Such grades, domestic and imported together, have ordinarily accounted for 95 per cent or more of the total wools consumed in the United States in "dutiable" uses, that is to say, in uses other than manufacture of carpets and other specified products for which unimproved and other coarse wools may be imported free of duty. There are variations in the characteristics of wool in addition to fineness which influence the trade in and the prices of apparel wool.

1. Howard S. Piquet, op. cit., pp.280-82.
2. This refers to the official classification of wool fibers according to their diameter.

Foreign producers of wool have long had a substantial comparative advantage over the United States in the growing of wool. For many decades foreign wools, similar to those grown in the United States have been imported into the United States, most of the time in large quantities and subject to substantial tariffs. These imports have been sold in direct competition with domestic wools.

In Australia, the principal competing country, labor costs are undoubtedly lower than in the United States. Generally speaking, less labor is required to tend the flocks in Australia. This is due in part to the fact that the greater part of the production is on fenced holdings (paddocks) while in the United States about half of the production is on the open range and therefore requires more herders. Another advantage of the Australian industry is in regard to costs and other conditions affecting land use. The alternative opportunities for use of land are less attractive in Australia than in the United States. This makes land values in Australia considerably less.

To some extent these, and other, comparative advantages enjoyed by foreign producers are offset by certain advantages held by the domestic industry of the United States. Domestic producers apparently have, on the average, some advantage in shipping costs in marketing their wool as compared with wool shipped from Australia and other distant sources.

Much more important, however, as a factor helping to sustain a large part of the industry in the United States is the fact that this country offers a more advantageous market for lamb and mutton than is available to sheep raisers in Australia and other important wool exporting nations. The United States sheep raisers usually get about 50 per cent of their income from the sale of sheep and lamb for meat. In Australia the percentage is about one-half that. As a result the net cost of growing wool is considerably

lower in the United States than if part or all of the cost of sheep raising were chargeable to wool alone.

About 70 per cent of the United States wool production comes from the Western states. In this area sheep raising is a major or the sole business of the producers. Production conditions vary greatly in this area. Over a period of years the part of the United States clip originating in Texas has been increasing. In recent years Texas has accounted for about 20 per cent of the United States clip. In Texas the sheep are grazed on fenced ranges.

If the duty on these classes were suspended there would likely be a substantial increase in imports. It would likely take from three to five years for the full effects to be felt. If the price support program is continued the imports will be larger than if supports were removed.

Par. 1105 (a). Wool noils.[1] Ratio, imports to production: 52 per cent.

U.S. Production: 30,181,000 pounds Duty: 10½¢ to 16¢ a pound.

Imports: $19,527,000 Ad valorum equivalent: 10 per cent.

Sources of Imports

United Kingdom	$ 10,301,000
Australia	2,525,000
Belgium	2,206,000
Argentina	2,205,000
France	524,000
All others	1,766,000

Exports: $81,559,397 (2,105,024 pounds)

This classification is made up of noils and other wastes that can be used. These make up about 10 per cent of the textile fibers of all kinds consumed by the woolen and worsted industry. Noils are shorter fibers of wool removed in the combing process. They are priced and sold by grade depending upon the grade of wool from which they were made.

1. Howard S. Piquet, op. cit., pp.282-83.

Suspension of the duty probably would result in a slight increase of imports. This classification of wool is used largely in the wool felt hat industry. Over half of the raw material used is noils.

Par. 1105 (a). Wool rags.[1] Duty: 9¢ a pound

U.S. Production: No available but many times larger than imports

Ad valorem equivalent: 13 per cent

Exports: $16,019,207

Source of Imports

United Kingdom	$ 2,365,894
Canada	492,066
Australia	475,653
Argentina	395,592
Belgium	102,863
All others	170,974

This classification is made up of wool rags. These rags, when reduced to the fibrous state, are important as a raw material in the manufacturing of medium- and low-priced woolen goods such as overcoating and suiting. The rags are seldom used alone. They are generally used as a blend with other wools. Imports are principally rags from knit goods and fine flannels which are not available in large quantities in the United States. The United States has been a net exporter of wool rags for a number of years. The rags that are exported are of low qualities and have either no market or only a small United States market. The suspension of the duty would see only a moderate increase in imports.

Par. 1106. Wool Top.[2]

U.S. Production: 223,688,000 pounds

Imports: $24,385,082 (10,400,000 pounds)

Exports: $594,719 (215,559 pounds)

Ratio, imports to production: 5 per cent

Duty: 27 3/4¢ per pound plus 6½ per cent

Ad valorem equivalent: 18 per cent

1. Howard S. Piquet, op. cit., pp.283-84.
2. Ibid., pp.284-85.

Sources of Imports

Uruguay	$ 9,574,305
Argentina	8,847,878
France	3,224,060
Belgium	1,185,138
United Kingdom	410,716
Australia	408,708
Union of South Africa	348,006
Italy	135,468
All others	205,803

Wool tops, an intermediate product in making worsted yarn, are combed wool slivers from which the shorter fibers (noils) have been removed by the combing process. If the duty were removed, the result would probably be a moderate increase in imports. This increase in imports would be the result of rerouting supplies from other countries to the United States. Also many worsted manufacturers might prefer to import top in preference to wool.

Par. 1107. Yarns of wool (except Angora rabbit hair)[1]

U.S. Production: 566,593,000 pounds

Imports: $3,882,000

Exports: $594,719 (215,559 pounds)

Ratio, imports to production: less than 1 per cent

Duty: 30¢ pound plus 15 per cent ad valorem to 40¢ pound plus 50 per cent ad valorem

Ad valorem equivalent: 31 per cent

Source of Imports

Germany	$ 1,649,000
Italy	587,000
United Kingdom	551,000
Switzerland	185,000
Austria	181,000
France	383,000
Belgium	146,000
All others	200,000

Imports in 1949 were the largest in a 25-year period. The duty in the Tariff Act of 1930 was too high to permit imports of ordinary weaving yarns to compete in the United States market. The rate was lowered in 1939. The rates were again lowered in January of 1948. As the result of this imports began to

1. Howard S. Piquet, op. cit., pp.285-86.

increase substantially. If the duty were suspended imports would probably increase substantially. These imports would be diverted from other countries and sent to the United States. If the supplies were ample the imports might be large enough to take over the yarn market in the United States.

Par. 1108, 1109 (a). Woolens and worsteds.[1]

U.S. Production: 465,000,000 square yards (est.)

Imports: $43,388,027 (18,700,000 sq. yds.)

Exports: $7,918,000

Ratio, imports to production: 4 per cent

Duty: 30¢ or 37½¢ a pound, plus 25 per cent ad valorem to 50¢ a pound plus 60 per cent ad valorem.

Ad valorem equivalent: 33 per cent

Sources of Imports

United Kingdom	$ 30,522,602
Italy	6,174,952
France	1,821,610
Czechoslovakia	1,708,081
Switzerland	1,144,885
Germany	636,444
Belgium	382,902
Japan	366,963
All others	629,588

The suspension of the duty would likely cause a large increase in imports, as well as lower domestic production. Imports would likely increase as much as 50 per cent to 100 per cent.

Par. 1111. Wool blankets and similar articles (other than hand woven)[2]

U.S. Production: 42,204,000 pounds

Imports: $492,000 (238,000 pounds)

Exports: $1,415,277

Ratio, imports to production: less than 1 per cent

Duty: 30¢ a pound plus 30 per cent ad valorem to 40¢ a pound plus 40 per cent ad valorem

Ad valorem equivalent: 44 per cent

Sources of Income

United Kingdom	$ 242,000
Netherlands	229,000
All others	21,000

1. Howard S. Piquet, op. cit., pp.286-88.
2. Ibid., pp.288-89.

The suspension of the duty would likely result in a substantial increase in imports. This increase, though, would continue to supply only a small part of the domestic industry.

Par. 1114 (b, c, d), 1529 (a). Wool wearing apparel, knit or crocheted.[1]

U.S. Production and imports:

Type of Wearing Apparel	Domestic Production	Import Quantity	Ratio, Imports to Production (%)
Hosiery	7,600,000 doz. pairs	668,034 doz. pairs	8.8
Gloves	1,400,000 doz. pairs	736,881 doz. pairs	52.6
Underwear	680,000 lbs.	10,671 lbs.	1.6
Headwear	2,000,000 lbs.	149,491 lbs.	7.5
Outerwear	30,000,000 lbs.	729,687 lbs.	2.4

Sources of Imports	Hosiery	Gloves	Underwear	Headwear	Outerwear
Canada	$1,104,096	$ 423	$ 2,760	$	$
United Kingdom	3,613,659	59,322	79,770	62,057	7,386,081
France	7,794	9,331		235,993	
Austria	851,839	13,962	47	916	1,751,233
Switzerland	510	28,871	16,831	751	196,853
Italy	1,246	365,829		28,525	163,526
Japan	10,483	2,711,883		3,179	204,998
Czechoslovakia	39			164,005	
Germany	144,883	8		16	50,772
All others	45,790	9,393	8,881	10,835	350,170

Total From Each Source

Canada	$ 1,107,279
United Kingdom	11,200,889
France	253,118
Austria	2,617,997
Switzerland	243,822
Italy	559,126
Japan	2,930,498
Czechoslovakia	164,044
Germany	195,679
All others	425,069

1. Howard S. Piquet, op. cit., pp.289-292.

Duty: Various compound rates ranging from 30¢ a pound plus 20 per cent ad valorem to 40¢ a pound plus 35 per cent on American selling price. Some embroidered articles subject to 90 per cent ad valorem.

Article	Import Value	Ad Valorem Equivalent (%)
Hosiery	$ 5,780,294	26
Gloves	3,199,022	41
Underwear	108,289	24
Headwear	506,283	36
Outerwear	10,130,633	24
Total	19,697,521	

Exports: $1,350,000

Par. 1116, 1117. Wool carpets and rugs.[1]

I. Oriental and other hand-made floor coverings, par. 1116a accounts for approximately 50 per cent of the total value of imports. Rugs in this category are not made in the United States. Iran, India, and China are the principal sources.

II. Machine-made carpets and rugs, dutiable under par. 1116b, 1117b, which account for about 25 per cent of the total value of imports. Similar types are produced in the United States. Belgium, the United Kingdom, France, and Italy are the principal suppliers.

III. Imports entered under par. 1117c which consist principally of wool druggets and Numdah rugs from India and wool hooked rugs from China and Japan. These rugs account for about 25 per cent in value and nearly 50 per cent of the yardage of imports. Floor covering in this category, with the possible exception of hooked rugs, are not produced in the United States.

I. Par. 1116 (a). Oriental and other hand-made floor covering.[2]

U.S. Production: None

Imports: $7,767,588

Exports: None

Duty: 15¢ per sq. ft., 22½ per cent min. But, if wholly or in chief value of Alpaca, llama, etc., 12½¢ per sq. ft., 11¼ per cent min.

Ad valorem equivalent: 22½ per cent

Source of Imports

Iran	$ 6,306,216
All others	1,461,372

1. Howard S. Piquet, op. cit., p.292.
2. Ibid., pp.292-93.

The suspension of duties would mean only a slight increase in imports. There is a world shortage of these items. Also China is no longer available as a source of supply. In a period with normal conditions the result might be moderate increases in imports.

II. Par. 1116 (b), 1117 (a), 1117 (b). Machine-made carpets and rugs.[1]

A. Oriental weave and Chenille. Axminister (par. 1116b)

U.S. Production: Small (Statistics not available)

Imports: $830,758

Exports: Not separately recorded; probably negligible

Duty: 30 per cent ad valorem (Chenille Axminister), 25 per cent ad valorem (oriental weave)

Source of Imports

United Kingdom	$ 624,757
Belgium	107,951
Czechoslovakia	83,256
All others	14,821

Shortages of both materials and labor would undoubtedly prevent imports from increasing more than slightly if the duty were suspended. Under normal conditions suspension would substantially increase imports.

B. Axminister, Wilton, Brussels, etc. (par. 1117a, b)

U.S. Production: 67,167,000 sq. yds.

Imports: 1,960,000 sq. yds. ($10,234,614)

Ratio, imports to production: 3 per cent

Duty: 25 per cent ad valorem.

Source of Imports

Belgium	
United Kingdom	$ 6,081,878
Germany	2,573,128
France	785,622
Czechoslovakia	225,472
All others	291,879

1. Howard S. Piquet, op. cit., pp.293-96.

High-price rugs which are competing with domestic production. A suspension of duties would likely result in a substantial increase in imports.

III. Par. 1117 (c). Mohair carpets and rugs and wool floor coverings not specially provided for.[1]

A. Mohair carpet rugs.

U.S. Production: Negligible

Imports: $6,760

Duty: 25 per cent ad valorem

Source of Incomes

United Kingdom	$ 6,196
All others	591

The suspension of the duties would have only a slight effect on imports. Under normal conditions there would possibly be a moderate increase.

B. Wool floor coverings not specially provided for.

U.S. Production: Small

Exports: Not separately classified

Duty: Valued at not over 40¢ per sq. ft., 15 per cent ad valorem, valued over 40¢ per sq. ft., 40 per cent ad valorem

Source of Imports

Japan	$ 2,063,905
China	529,262
India	206,601
Mexico	112,422
All others	48,015

Suspension of the duty might result in a substantial increase in imports.

C. Ingrain carpets and rugs.

U.S. Production: Negligible Duty: 25 per cent ad valorem

Imports: $754

1. Howard S. Piquet, op. cit., pp.296-98.

Source of Imports

France	$ 729
Italy	28

These products have not been used in the United States in any significant quantities for many years. Only a slight increase would result from the suspension of duties.

Rates of Duty on Wool Imports Under the Tariff Acts, 1789-1948.

The following table shows the position of the wool rates from the passage of the first tariff in 1789 up to 1948.[1]

Date of Act	Effective Date	Rate of Duty
1789-1816		Free
April 27, 1816	July 1, 1816	First act. 15 per cent ad valorem
May 22, 1824	July 1, 1824	Value of 10 cents a pound or less, 15 per cent; other wool, 20 per cent until July 1, 1825; 25 per cent until June 1, 1826; 30 per cent thereafter
May 19, 1828	Sept. 2, 1828	4 cents a pound plus 40 per cent to June 30, 1829; plus 45 per cent to June 30, 1830; plus 50 per cent thereafter
July 14, 1832	March 4, 1833	Value of 8 cents a pound or less, free; other wool, 4 cents a pound plus 40 per cent
March 2, 1833	January 1, 1834	Duties exceeding 20 per cent to be reduced to 20 per cent by yearly reductions to July 1, 1842.
September 11, 1841	October 1, 1841	All rates below 20 per cent to be 20 per cent
August 30, 1842	August 31, 1842	Value of 7 cents a pound or less, 5 per cent; other wool, 3 cents a pound plus 30 per cent
July 30, 1846	December 2, 1846	30 per cent
March 3, 1857	July 1, 1857	Valued at 20 cents a pound or less free. All other, 24 per cent

1. D. W. Carr. Economics of Preparing Wool for Market and Manufacture. (U.S. Government Printing Office) pp.15-17.

March 2, 1861	April 2, 1861	Value of 18 cents a pound or less, 5 per cent; value over 18 cents to 24 cents, 3 cents a pound; value over 24 cents, 9 cents a pound
June 30, 1864	July 1, 1864	Value of 12 cents a pound or less, 3 cents a pound; value over 12 cents to 24 cents, 6 cents a pound, value over 24 cents to 32 cents, 10 cents a pound, plus 10 per cent; value over 32 cents, 12 cents a pound plus 10 per cent. Scoured wool, three times these rates
March 2, 1867	March 3, 1867	Class 1 (clothing wool), value of 32 cents a pound or less, 10 cents a pound plus 11 per cent; value over 32 cents, 12 cents a pound plus 10 per cent. Class 2 (combing wool), value of 32 cents a pound or less, 10 cents a pound plus 11 per cent value over 32 cents, 12 cents a pound plus 10 per cent. Class 3 (carpet wools), value of 12 cents a pound or less, 3 cents a pound; value over 12 cents, 6 cents a pound. Washed, class 1, twice these rates; scoured, all classes, three times these rates
June 6, 1872	August 1, 1872	All wools, 10 per cent reduction of former rates
March 3, 1875	March 4, 1875	10 per cent reduction of June 6, 1872 repealed
March 3, 1883	July 1, 1883	Class 1, value of 30 cents a pound or less, 10 cents a pound, value over 30 cents, 12 cents a pound. Class 2, value of 30 cents a pound or less, 10 cents a pound; value over 30 cents, 12 cents a pound. Class 3, value of 12 cents a pound or less, $2\frac{1}{2}$ cents a pound; value over 12 cents, 5 cents a pound. Washed, class 1, twice these rates; scoured, all classes, three times these rates
October 1, 1890	October 6, 1890	Class 1, 11 cents a pound. Class 2, 12 cents a pound. Class 3, value of 13 cents a pound or less, 32 per cent; value over 13 cents, 50 per cent. Washed, class 1, twice this rate, scoured, classes 1 and 2, three times these rates

August 27, 1894	August 1, 1895	Free
July 24, 1897	July 24, 1897	Class 1, 11 cents a pound. Class 2, 12 cents a pound. Class 3, value of 12 cents a pound or less, 4 cents a pound; value over 12 cents, 7 cents a pound. Washed, class 1, twice this rate, scoured, classes 1 and 2, three times these rates; fit for carding or spinning, class 3, three times these rates
August 5, 1909	August 6, 1909	Class 1, 11 cents a pound. Class 2, 12 cents a pound. Class 3, value of 12 cents a pound or less, 4 cents a pound; value over 12 cents, 7 cents a pound. Washed, class 1, twice this rate; scoured, classes 1 and 2, three times these rates; fit for carding or spinning, class 3, three times these rates. Foregoing rates are the minimum tariff. The maximum tariff is 25 per cent higher and is to be in force to March 31, 1910, and thereafter, unless the President by proclamation declares no discrimination by particular countries
October 3, 1913	December 1, 1913	Free
May 27, 1921	May 28, 1921	Clothing wool, unwashed, 15 cents a pound; washed, 30 cents a pound; scoured, 45 cents a pound
September 21, 1922	September 22, 1922	Wool not improved by admixture with Merino of English blood, in the grease, 12 cents a pound; washed, 18 cents a pound; scoured 24 cents a pound. If used for carpets, rugs, or other floor coverings, duty refunded. Other wool in the grease or washed, 31 cents a pound of clean content; scoured, 31 cents a pound. (all rates subject to change by the President after investigation of costs of production, domestic and foreign)
Act of 1930		Wool not improved by admixture with Merino or English blood, in the grease, 24 cents a pound; washed 24 cents a pound; scoured, 27 cents a pound. If used for carpets, rugs, or other floor coverings, free or duty refunded. Other wool finer than 44's, in the grease or washed, 34 cents a pound of clean conten[illegible]

	scoured, 37 cents a pound. Other wool finer than 40's but not finer than 44's, in the grease or washed, 29 cents a pound; scoured, 32 cents a pound
1945[1]	Wool not improved by admixture with Merino or English blood, in the grease, 13 cents a pound; washed 13 cents a pound; scoured 16 cents a pound. If used for carpets, rugs, or other floor coverings, free or duty refunded. Other wool, finer than 44's in the grease or washed, 34 cents a pound of clean content; scoured, 37 cents a pound. Other wool, finer than 40's but not finer than 44's, in the grease or washed, 17 cents a pound, scoured, 20 cents a pound
1948[2]	Wool not improved by admixture with Merino or English blood, in the grease, 13 cents a pound; washed, 13 cents a pound; scoured, 16 cents a pound. If used for carpets, rugs, or other floor coverings, free or duty refunded. Other wool, finer than 44's, in the grease or washed, 25½ cents a pound of clean content; scoured, 27 3/4 cents a pound. Other wool, finer than 40's but not finer than 44's, in the grease or washed, 17 cents a pound; scoured, 20 cents a pound*

1. Trade agreement with Argentina, effective November 1941, and with Uruguay, effective January, 1943. Op. cit., p.17.
2. Bound, Geneva, 1948; commitment not made effective on January 1, 1948, pursuant to Article 27 of the Geneva Agreement, but became effective July 31, 1948. Op. cit., p.17.

* Rates from 1789 to 1922 adapted from U. S. Department of Agriculture Yearbook 1923, (45, p.305); others adapted from United States Tariff Commission, Summaries of Tariff Information, Vol. 2, Wool and Manufactures, Part 1, Raw Wool and Related Hair (51).

THE PRESENT POSITION OF THE WOOL INDUSTRY

Introduction - World Wool Position

Wool is a world commodity, being produced in nearly every part of the world. The combined output of the seven largest producing countries--Australia, Argentina, New Zealand, Soviet Union, United States, British South Africa, and Uruguay--represents about three-fourths of the world total. Annual world production between 1920 and 1950 ranged from a low of 3 billion pounds, grease basis, in 1920, to a high of 4.2 billion pounds, grease basis, in 1941. At the present about four-fifths of the wool produced is apparel wool.

The seven largest wool-producing countries are also the principal producers of apparel wool. They produce about 85 per cent of the apparel wool. Of these, the five surplus or exporting countries--Australia, Argentina, New Zealand, British South Africa, and Uruguay--account for about 70 per cent of the world's total. The chief countries in the production of carpet wool are Argentina, the Balkan countries, China, French Africa, India, Iran, Pakistan, Soviet Union, and Turkey.

Just as production is widely distributed over the globe, so also is consumption. Wool textile industries of varying sizes are established in nearly fifty countries. The bulk of consumption, however, as in the case of production, is concentrated in comparatively few countries (see the table on page [illegible]). During the interwar years, about four-fifths of the wool produced was consumed by the mills of eight countries--United Kingdom, United States, France, Germany,

Soviet Union, Japan, Italy, and Belgium. Not all of the wool used by mills in these countries is for ultimate home consumption. A substantial part consumed by mills in all of them, except the United States and the Soviet Union, normally is exported in the form of semi-manufactured and manufactured goods.

Between 60 and 70 per cent of the world production of apparel wool enters into international trade. The five surplus producing countries normally export between 85 to 90 per cent of their output. Six of the eight large consumers, on the other hand, normally import more than three-fourths of their annual requirements.

The American wool textile industry has the largest production capacity of its kind in the world. It comprises 829 establishments engaged in some or all of the processes of converting greasy wool into finished fabrics. It employed an average of over 140,000 persons and paid out wages in excess of $400,000,000 in 1953. Its products had a value of more than $2,000,000,000.

The conversion of wool textiles into men's, women's, and children's clothing engages the major portion of the highly paid labor of over 350,000 men and women in the tailored clothing industry with a total annual wage of approximately $850,000,000. The finished products of the wool textile industry, including clothing, blankets, and upholstery, had a total retail value in 1950 estimated at $6,500,000,000. There are other industries largely dependent upon the products of sheep, including leather tanning, pharmaceutical production, sheepskins, hides, and pelt products.

The world consumption of wool is increasing. Before World War II it was .96 pounds per person a year. In 1953 it was 1.01 pounds per person yearly. This is due largely to the dramatic increase in

consumption in the United States during this period. The United States per capita consumption of wool in the post-war period is 54 per cent higher than in the period from 1934 to 1938. In other countries the trend is also up but not on such a pronounced scale.

Wool consumption since the war has been met by the sale of 2,250,000,000 pounds of wool accumulated during the war. 1951 was the first post-war year in which consumption was below production. This was due to the abnormal inventory accumulation following the start of the Korean action. This condition continued on into 1952 but world consumption was still increasing. Now there seems to be an approximate balance between production and consumption. This situation appears to have stabilized the price of wool.

Wool is a commodity of comparatively high value in relation to its bulk and weight. Therefore it can be shipped long distances at relatively low costs. Wool growing on a large scale is best adapted to the frontier which has large tracts of underdeveloped range for grazing sheep. These two facts largely explain why the major wool-producing regions are found in the countries of the SouthernHemisphere. Such nations as Australia, New Zealand, Argentina, Uruguay, and South Africa are the major producing areas. The chief consuming areas, however, are located in the older and densely populated sections of the world, especially in western Europe. The United States is unique among wool-producing countries in that its home market absorbs its entire production.[1] In fact, it is necessary to import some wool from the surplus regions in order to take care of domestic requirements.

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1. A large amount goes into storage after being purchased by the Commodity Credit Corporation. The supply now amounts to around 100,000,000 pounds.

Thus United States producers, possessing a home market, are nevertheless affected by the competition of major exporting regions. The United States is on an import basis as far as the world is concerned. Most of the imports come in as raw wool although some manufactured articles and semi-processed fibers are also included. Unlike domestic producers of some commodities such as beet sugar, wool growers of the Western range enjoy only a little advantage over foreign competitors in shipping costs. High rail rates and the considerable distance from the principle United States market, Boston, prevent such a possibility, especially, as foreign wools are shipped very cheaply over long distances by water. The competitive problems of the United States wool-producing industry can primarily be attributed to the fact that the United States is a country moderately advanced in the growth of its population and exploration of its resources but attempting to compete with the frontier regions of the world. The production of sheep and wool has generally been increasing on a world basis since World War II but the trend in the United States has been down.

The United States Industry From World War II to the Present

The western part of the United States covered by this survey is characterized by vast stretches of grassland and bush covered areas surrounding occasional mountains that support timber in varying degree. These areas furnish winter and spring-fall grazing. The mountains furnish the summer grazing areas. The climate varies from subtropical and low elevations of 1,000 feet to subarctic in the high mountains.

Rain fall is sparse except for the high mountains where annual precipitation may exceed 40 inches. Adjacent to the mountains are small fertile valleys. Crops are grown here by irrigation. In the

desert areas the annual precipitation may average only 5 inches. Water is the key to crops and livestock agriculture in this region. Storage of water by snow pack, dams, or a combination of both, permits crop farming to flourish under irrigation. Without crops the range livestock industry could not survive in its present form on large areas of range land.

Water helps to grow feed that will carry the livestock over the winter period when forage is either gone or covered by snow. Rain or snow is liquid gold as far as the rancher is concerned. The scant range vegetation produces only a small amount of forage, even under favorable conditions. In periods of below normal rain fall the forage may reach such a low level that the rancher is faced with a grave shortage of feed. In this situation his only hope is rain. The range livestock economy is based upon the interdependent relationship of irrigated hay and pasture lands and the large acreages of private and public range lands. This is the land the Western sheepmen have to grow their sheep on.

The sheep of the West had their origin principally in two distinct sources. First were the improved types brought from the East and the unimproved native sheep trailed from the Southwest. The native sheep were undoubtedly descended from Spanish stock brought into Mexico and California by early Spanish explorers. Many years of uncontrolled breeding had reduced these animals to a very inferior, light shearing, type. After being brought to the Western range country these sheep were greatly improved by intelligent breeding practices and the introduction of new blood.

Formerly because of an abundance of free range land, cheap labor, and the long distance to the markets few young sheep or lambs were

marketed. The wethers were kept in large bands until three or four clips of wool had been obtained and then they were shipped to market. Production costs were low and the season's wool clip made a compact, relatively non-perishable product, well adapted to the long hauls over poor roads to the shipping points.

In recent years lamb and mutton has taken the place of wool as the principal source of revenue from range sheep. This change has been brought about largely by the reduction of the free range, the advent of better transportation, and the increased market demand for lamb. The range sheepman accordingly markets most of his lambs at from four to six months of age and retains only the ewe lambs necessary to maintain his band.

Despite extensive efforts to encourage sheep and wool production through both the tariff and loan and purchase programs, sheep and wool production have remained relatively unattractive compared with alternative farm and ranch enterprises. The reasons for this unattractiveness toward wool and sheep production are several and complicated and will be discussed later.

Consumption of apparel wool in the United States has fallen from post-war levels because of: (1) the abnormally high level of consumption immediately following the war; (2) a trend toward lighter weight clothing; (3) increased competition from budgetary items other than clothing for the consumer's dollar; and (4) increased competition from other fibers, particularly the man-made fibers. Per capita consumption of wool in the United States is slightly above pre-war levels (1935-1939).

Incomes in this country have gone up on the average since pre-war days. In 1935 93 per cent of the people made less than $3,000, 5 per

cent made from $3,000 to $4,999, and only 2 per cent made over $5,000. In 1946 the picture was 65 per cent making less than $3,000, 25 per cent making from $3,000 to $4,999, and with 10 per cent making over $5,000. By 1952 only 43 per cent made under $3,000, 32 per cent from $3,000 to $4,999, and 25 per cent over $5,000 a year. Even though dollar expenditures for clothing have risen, they have not kept up with total consumer expenditures. It may be the clothing industry has been lax in its efforts to develop public relations programs that would strive to maintain consumer clothing expenditures at the ratio to disposable income prevalent in the 1930's. The tendency is that as income increases the proportion of family income spent on clothing tends to decline.

The wool producers believe that foreign imports are their biggest enemy. They say that increasing foreign imports have been primarily responsible for the decline in wool production from 80 per cent of our wool consumption in 1939 to about 30 per cent in 1953. Using just the past decade the number of sheep shorn in the United States has declined from 48,000,000 head producing 379 million pounds of wool in 1943 down to 28,000,000 head producing approximately 229 million of wool in 1953.

SHEEP SHORN 1942-1953

Year	Number Sheep Shorn (000)	Year	Number Sheep Shorn (000)
1942	49,287	1948	28,649
1943	47,892	1949	26,382
1944	43,165	1950	26,387
1945	38,763	1951	27,357
1946	34,647	1952	28,172
1947	30,953	1953	27,857

SOURCE: U.S. Department of Agriculture, Bureau of Agricultural Economics.

The wool producers believe the promotion of world trade should be on the basis of fair and reasonable competition and must be done within the principle long maintained that foreign products of underpaid foreign labor shall not be admitted to this country on terms which endanger the living standard of the American working man or the American farmer or threaten serious injury to a domestic industry.

The United States Congress is urged to resume its constitutional responsibility of regulation of foreign commerce through the adjustment of duties, imports, and excises through its agent the Tariff Commission, and allow the 1934 Trade Agreements Act, the so-called Reciprocal Trade Act, which transferred such responsibility to the President, to expire.

The National Wool Growers Association in its 1954 platform said that it wished to reaffirm the historical position of the association that an adequate tariff on wool is the proper way to safeguard the sheep industry of the United States. It is the Association's desire for the government to maintain such laws as the Berry Amendment to the Defense Appropriation Act which requires the use of domestic wool in all government contracts whenever available. They want such legislation to be made permanent as part of the Buy-American Act.

The wool producers have taken steps to try and promote domestic wool sales. They have undertaken a wool advertising and promotion plan which will be aimed at the buying public directly rather than mills and cutters. This program is being planned by a newly formed organization which will be called "Wool, Incorporated." This organization will be backed by the Boston and Philadelphia Traders Associations, The Wool Bureau, and The Wool Secretariat. The plan is to spend around $350,000 to $400,000 a year over a three-year period.

It is felt that this is a step in the right direction and that it should be endorsed and supported by all in the wool industry. There is hope that through this medium the buying public will be convinced of the merits of wool and that the long-time belief that imported fabrics are superior to domestic manufactured goods can be refuted once and for all.

> The finest fabrics and patterns are manufactured right here in our own country; yet there are thousands who believe that woolen and worsted materials "Made in England" or "Made in Scotland" etc. must be finer. Wool, Inc. will strive to prove to our buying public that we Americans are pretty good at turning out attractive and long wearing fabrics that can compete with the finest.[1]

It is important that sheep production be increased and maintained at higher levels. The sheep provide the most efficient and economical way to convert into meat and clothing forage from large areas of grassland which otherwise would have no economic value. Of the nation's land area 67.5 per cent is classified as usable only for grazing livestock and producing feed and forage. Also in this country only 6.7 per cent of the land is used for the production of human food.

These vast areas of grazing land are one of our most important resources. Sheep are efficient utilizers of grass and forage crops. Dean Chapman of Georgia Agriculture College, in his book, Pasture, estimates that 97 per cent of the feed consumed by sheep is pasture and forage crops and only 3 per cent concentrated feeds. The sheep is the only domestic animal capable of producing a prime product from forage alone. The best lambs and the best wool come from such production.

The uniquely efficient feeding habits of sheep enable them to transform submarginal land into income-producing land. Thousands of acres of this land, properly grazed by sheep, would result in unceasing benefits, provide labor and investment possibilities.

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1. National Wool Clip, Jan. 30, 1954, National Wool Marketing Corporation, Boston, Massachusetts.

Military Needs

Wool is a vital necessity to a nation at war. A large use of substitutes in uniforms will expose troops to discomfort and disease with resultant loss of combat effectiveness. The Germans were reminded of this during the Russian winters. During the winter at Stalingrad the Germans called upon the home front to give up all wool material, clothing, blankets, etc. available to be used on the front.

Wool is not only necessary to a belligerent but it is necessary in quantities greatly out of proportion to civilian requirements. The military, unlike civilians, needs to outfit soldiers and ensure reserves against wastage and hazards of war at all points in its distribution system. In 1939 the per capita consumption of wool in the United States was around 2 pounds scoured basis. In 1942 the Army used for men in the training period 75 pounds of wool a year. When the man was in active duty or in combat wastage was higher so it took 100 pounds a year per man. In 1943, with 5,750,000 men in uniform and with some 2,000,000 of them having been taken in that year, the Army needed 350,000,000 pounds of wool scoured basis.

There is always fear of a shortage of wool in time of war. The domestic production has not been enough in World War I, World War II, or in the Korean Action to meet current needs. So, in periods of war, a stockpile must necessarily be developed to ensure against an interruption of ocean transport.

The wool-producing industry is looking forward to the new changes in the Army's uniforms. This will call for increased consumption of wool. Under the Buy American Agreements on wool the purchases by the government must come from domestic wool supplies. This means a good market for wool producers in a period when they cannot keep up with domestic consumption needs.

The soldier's outfit contains much wool. The following outline of a soldier's equipment shows to how large an extent this is true.

The Uniform

Upper body:

Undershirt, 50 per cent wool, 50 per cent cotton.

Wool shirt.

Lower body:

Full length underdrawers, 50 per cent wool, 50 per cent cotton.

Wool serge trousers.

Outer body:

Wool-mohair trouser-liner over which water-and-wind-resistant cotton field trousers are worn.

Water-and-wind-resistant cotton parka with wool-mohair freeze liner.

Head:

Cotton cap with wool ear flaps.

Helmet and helmet liner.

Parka hood with wool flannel lining and wind-resistant cotton outer covering with fur trim.

Hands:

Trigger finger mittens, consisting of wool knitted insert under a leather shell.

Feet:

New double-shell insulated rubber combat boots with inch thick wool fleece between shells.

All wool, cushion soled socks.

From these facts it is easy to see that the military has a great need for wool in order to maintain its fighting forces in peak condition.

The following table is a breakdown of mill consumption of apparel wool and the domestic production of wool for the years from approximately 1935 to 1946:

Mill consumption of apparel wool and domestic production of wool, grease basis, average 1935-39, annual 1939-46.[1]

Year	Consumption			Domestic Production[2]
	Military and export[1]	Civilian[1]	Total[1]	
	million pounds	million pounds	million pounds	million pounds
Average 1935-39	6	586	592	424
1939	20	610	630	426
1940	96	545	641	434
1941	310	667	977	453
1942	850	227	1,077	455
1943	724	337	1,061	444
1944	483	526	1,009	412
1945	575	438	1,013	378
1946	6	1,045	1,051	342

1/ Domestic wool requirements and source of supply (48)
2/ Wool Statistics (41, p. 5)

Reasons for the Decline in Wool Production

Twenty years ago the United States produced three-fourths of the wool it consumed. Today in the face of greatly increased consumption of wool, arising out of expanding defense activities, growing population, and high level development, it would seem production of domestic wool would also increase. Exactly the reverse has been the case. This decline in the face of increased demand has gone to a point where we produce one-fourth of the wool we consume. If for no other reason than defense, we should increase domestic production. During World War II we produced only one-half of the wool needed for military purposes. The sea lanes during wars are none too safe. We have to transport wool imports from 5 to 12,000 miles.

There are several reasons for the decline in the domestic production of wool and in the number of sheep in this country. The wool growers would have us think the major cause is due to the increased competition

1. D. W. Carr and L. D. Howell. Economics of Preparing Wool for Market and Manufacture (Washington D. C.: U.S. Printing Office) p. 39, table 9.

from foreign producers. To combat this they are always asking for higher tariff rates. A study of the industry shows other important reasons for the decline.

Some of the more important causes of the decline are: The scarcity and high cost of competent labor, the fact that the prices of some other types of livestock have been more favorable than lamb and wool prices, the increased production of synthetic fibers, increasing investment required to establish new sheep ranches, certain range management practices, and the shortage of cheap land. Foreign competition is, of course, one of the important reasons.

The difficulty of obtaining good labor and herders is the paramount reason given by most ranches for converting from sheep to cattle. An additional but little stressed reason for reduction in sheep numbers in the Western states is the large investment required to maintain a range band of sheep. The total investment for a ranch grazing 1,200 to 1,500 sheep at post-war prices is usually not less than $50,000 and may exceed $75,000. Young men who wish to enter sheep ranching usually do not have sufficient credit or capital to buy a unit already in operation. The day has passed when the enterprising person could start with a few head of sheep and build into an economic ranching unit. Existing ranch units have been reduced in numbers since some are being sold when the older generation relinquishes control because the younger generation does not want to enter the sheep ranching business. Purchasers have been inclined to sell the sheep and stock the ranches with cattle.

Also in the past 20 years there has been a disastrous drought period. The prices received not only reached the lowest point in history but also the highest. An important factor in the grazing of sheep which aided the decline was the passage of the Taylor Grazing Act.

In recent years cattle have had a slight price advantage over sheep. This in itself can account for some of the decline. Some sheep ranches and farms have converted to cattle. This unfavorable position between sheep and cattle is decreasing at the present time.

Percentage distribution of cash expenditures, family-operated sheep ranches, Intermountain region, averages 1930-49, annual 1950.[1]

Period	Cash Expenditures For:							
	Live-stock purchased	Hired labor	Feed, seed, and supple-ments	Power and machin-ery	Miscel-laneous costs	Taxes	Build-ings and improve-ments	Total
	%	%	%	%	%	%	%	%
1930-34	23	22	24	11	9	8	3	100
1935-39	28	17	23	14	9	8	3	100
1940-44	32	22	18	15	6	5	2	100
1945-49	29	27	17	13	6	5	3	100
1950	31	24	14	18	5	7	1	100
Average	28	22	20	14	7	6	3	100

Another important cause for the decline was the government price program during World War II. In fact, the failure of the government to foresee the consequences of its restrictive price policies on sheep and wool is, to a large extent, responsible for the rapid decline of the sheep population. For the period from December, 1941, to September, 1946, the sheep producers' income from wool was stationary. For three years, from August, 1942, to August, 1945, gross income from lamb and mutton was stationary as the result of various price controls.

In contrast, during this time, farm production costs, as reflected in the Department of Agriculture's Index of Prices Paid by Farmers for

1. Commercial Family-Operated Sheep Ranches. Intermountain Region 1930-50. H. R. Hochmuth. Agriculture Information Bulletin No. 85. United States Department of Agriculture. Bureau of Agricultural Economics. Washington, D. C. May, 1952. Table 18. Page 42.

Commodities, Taxes, and Wages, rose steadily while the Index of Prices Received by Farmers for All Stocks and Livestock rose to unprecedented levels. It is little wonder sheep ranchers liquidated their livestock.

Labor

The difficulty of obtaining good labor and herders is the paramount reason given by most ranchers for converting from sheep to cattle. Sheep-herding is a specialized form of animal husbandry. A poor or untrained herder can destroy a large investment in a matter of hours by poor judgment or lack of initiative. The younger generation of native-born Americans is not attracted to sheepherding as an occupation. Herders usually are recruited from Spain, Mexico, and from the Indian tribes of the Intermountain region and the Southwest.

Labor affects the size of range sheep units, accounting for about 25 per cent of the cash costs. A large part of labor costs are fixed. Sheep must have at least one herder and if the number of sheep in the band is greatly reduced the labor cost per head becomes almost prohibitive. This factor above all accounts for the relative stability in the number of sheep.

There is a need for competent sheepherders before we can expect increased numbers of sheep on the range. Since Americans do not like the profession and immigration has cut off the best source, some means had to be found to supply competent labor. Special acts have been introduced into Congress to permit the entry of alien sheepherders under special quota visas. The men who have entered under these acts have been absorbed by the industry and the industry is better off as the result of these acts. But more such legislation is necessary.

The use of power shears and mobile contractors with portable machinery has decreased the labor needed on sheep ranches. Before, about thirty to

forty sheep sheared a day was considered good. Now the average is nearer seventy and some men average more than one hundred a day.

The number of motor trucks per sheep ranch has also increased. The use of mechanical power has decreased the amount of man labor necessary to haul supplements to sheep on the winter range. Also the moving of sheep between ranges by truck has increased. This decreases the labor needed to trail sheep over long distances. But labor requirements for herding have remained the same. Sheepherding is still a full-time job.

Land

Land has become a very serious problem to the wool producer. The days of vast expanses of free, unfenced land are gone. These days have been gone for some time now. As cheap land becomes more scarce it makes it harder for the wool producers to make a profit. The range sheep operator depends mainly on range lands to supply annual feed and forage requirements for his sheep. Feed from the crop land is used for supplemental feeding during the lambing and breeding seasons on the winter grazing grounds. Feed grains and other concentrated feeds are bought to supplement farm grown feeds during years of adverse climatic conditions and reduced protection.

In periods of severe cold or heavy snow a sheepman operates under severe handicaps. The 1948 winter is an example of such a disaster which a sheepman occasionally faces. Sheep on isolated winter ranges were unable to graze in the deep snow and feeding was necessary. In some cases hay dropped from low-flying aircraft was the only way in which some bands could be saved, even though the cost was almost prohibitive. Heavy winter feeding of sheep is costly and when this is necessary a sheepman makes little or no profit from the year's operations.

Climatic conditions alone can vary death losses from the normal or usual average of 10 per cent to 50 per cent or more. In good forage years lambs may average as much as 80 pounds or more when sold, or in poor forage years they may average less than 60 pounds per lamb. The success of a sheep ranch depends to some extent upon the weather and the volume of range forage produced. Although temperature and other climatic factors are involved, precipitation is the rancher's principal weather interest.

In the early days necessity forced Congress to adopt a liberal land policy in order to retire the debt. When the new states came into the Union, the balance of power passed to the West of that time and insured a liberal policy of settlement throughout the nineteenth century. During that entire century the cry was heard on every side that the lands belonged to the people and the title should be passed from the government as soon as possible. When it came time to dispose of the public domain in the Intermountain states it was popular to contend that the land belonged to all the people of the entire country and that the government should remain the perpetual landlord of its vast domain. The western part of the United States consists of only half of the total number of states. In fact, the total area of land in the 11 public land states is about 742,000,000 acres, of which the government owns, controls, and manages 444,000,000 acres or approximately 59 per cent of the area of the United States' western section.

Since the turn of the century the federal government embarked upon a vest program of classification, withdrawals, and reservations on the public domain. The forest reserves were built up to an empire of 135,000,000 acres. Since the early days only about one-half of this area has been used for grazing and this use has been cut periodically.

A vast number of laws have been passed dealing with the governmental land and its management. There have been some 5,000 statutes passed in the past 150 years. As new laws have been passed there is little notice paid to their relationship to those already on the books. Also it is very seldom the old laws are cancelled or replaced. The laws are piecemeal changes of public land policy and laws of the United States. They contain no clear policy to guide the administration of this body of laws. Each law enacted is an independent unit containing its own policy, which may or may not permit its operation in accord with the policy contained in other laws which may be applicable to the same land.

Some 505,000,000 acres of land are managed by various agencies of the national government. The result is an intolerable situation in the management of the government. There are three federal departments and some eight or nine different federal agencies administrating the public land. Each has different laws, each jealous of its own prerogatives, each with its own personnel, and each charging different fees. These lands are often intermingled so there is duplication of effort and even wasteful efforts.

Many laws have been enacted regarding the public domain. These laws cover many subjects and areas of use but little legislative attention has been given to the problems of the livestock men for the use of the public domain for grazing purposes.

More than 50 years ago almost every part of the West suitable for livestock was fully grazed and expansion into new territories became impossible. The number of animals continued to increase even after the saturation point was reached. As the result of this, many winter ranges were over-grazed. The excessive use of the range land brought about the reduction of the vegetation and loss of soil through increased wind and water erosion. Extremes in weather conditions and prolonged droughts accentuate the seriousness of range depletion.

Free use of winter ranges in the Intermountain region ended when the range was put under management following the passage of the Taylor Grazing Act of 1934. This act required increased ownership of land and leasing of public and private lands to form a stable ranching unit. The act has cut down the intensity of the use of public lands.

Before 1935 many sheep operations of one band or larger were entirely nomadic in character. Sometimes they obtained 100 per cent of their forage from non-owned lands. Through the administration of public lands this type of operation has disappeared from the Western scene. Nomadic ranchers who did not obtain ranch bases and base their operations from private lands upon which they operate during a portion of the year were forced to discontinue operations.

The Taylor Grazing Act was intended as a step toward greater stability of ranching operations and conservation of range lands. So far it has proved successful in these respects. Ranchers have become more conservation minded and many have instituted a policy of reduced stocking on their range lands.

Under the Taylor Grazing Act the Bureau of Land Management administers 142,000,000 of land in 60 grazing districts. Over 22,000 different operators range about two million cattle and eight million sheep on these lands. These operators must own base properties. It is estimated that they have an investment of nearly four hundred million in their outfits. Ownership of private grazing lands is a prerequisite to obtaining grazing permits for federal lands. At the same time Western ranches depend upon federal lands for supplementary forage during certain periods of the year.

A clear demonstration of the effects of the federal land policy on the Western livestock industry is seen in the steady annual decline in

the number of animals on the range and the length of time they may use the National Forest lands. The use of these lands is controlled by the issuance of grazing permits for certain periods of the year, depending upon the region and the type of livestock to be grazed. Five sheep to one cow is considered an animal unit in the issuance of permits and the establishments of grazing quotas for animal units during a given year.

In the 16 years from 1934 to 1950, grazing permits in terms of animal unit months declined 42 per cent. A leading agronomist, Dr. A. F. Voss, of the University of Wyoming, points out that at the present rate of decreasing cattle and sheep grazing permits all sheep and cattle would be off the National Forests in twenty years. Maladjustment in the ranch operations attending the loss of part-time grazing areas would result in a severe contraction of beef, lamb, and wool production.

In considering various uses of federal land it is generally true that grazing is the lowest or least valuable use, that is, the volume of forage on the average acre of federal land and its value are both rather low. Moreover, grazing is not generally thought to have indirect social benefits in the same way as are some other uses of federal land. Because of these facts whenever grazing conflicts with other uses of the federal land it is grazing which must be reduced or eliminated.

The disadvantages in competition of the United States range wool grower almost all originate from the reduction in grazing land. Closer settlement and utilization of land for agriculture restrict the ranges and interfere with the movement of flocks. This results in over-grazing of the land still of value for sheep production. Smaller bands of sheep have to be kept, the breed must be different, and only partial relief is found in the use of government resources of forest land for summer grazing.

The greater investment in land and equipment causes a heavy financial burden for the owner, and the fact that he is frequently pressed for ready money helps to place him at a disadvantage in marketing of his product. Even if all practicable measures are applied, sheep raising by the range system is far past its zenith in this country.

Marketing and Distribution

Although the price of imported wool is usually higher than the price of domestic wool, reflecting the differences in quality and preparation, consumption of imported wool in this country in recent years has increased markedly in relation to that of domestic wool. The competitive position of poorly prepared wool has been weakened in recent years as the result of technological and other developments in the wool-manufacturing industry. These developments were associated with large increases in cost of labor and the development of automatic machinery for use in reducing their costs. The use of high speed and more automatic machinery and improved methods requires uniform fibers for most efficient operation. As a result, the disadvantages of poorly prepared wools or other fibers are increased because manufacturers prefer wool that meets the requirements of the more automatic machinery and improved methods used.

Further expansion in production and improvements in quality of man-made fibers may affect materially the competitive position of wool. Some of these fibers apparently compete directly with wool. They are delivered to textile mills in good condition for manufacturing operations. Their uniformity and freedom from defects tend to reduce the cost of making fabrics.

Possibilities for more thorough preparation of wool to strengthen its competitive position depends upon whether the additional costs of

improvement would be at least offset by higher prices received as the result of such improvements.

The American producer generally sells his wool to whomever comes by and wants to buy it. The grower seldom knows much about the market conditions, either domestic or foreign. The wool producer too often sells to the first bidder or he is in such a condition he needs ready cash and he cannot wait for a better bid.

In comparison, practically all British Dominion wool is sold at public auction, either in the Dominions or in the United Kingdom. Until about the opening of World War II, London was the leading and largest auction center of raw wool in the world. Because of its proximity to the large consuming centers of Europe and the United Kingdom, it is the most important spot wool market on earth. During the inter-war years, auction sales in the Dominions developed rapidly. At present the chief auction centers for the Dominion are London and Liverpool in the United Kingdom; Albany, Brisbane, Geelong, Goulburn, Melbourne, New Castle, Perth, and Sydney in Australia; Auckland, Christchurch, Dunedin, Invercagill, Nupier, Wanganui, and Wellington in New Zealand; and Capetown, Durkin, East London, and Port Elizabeth in British South Africa. Sydney, Australia is now probably the world's most important single wool-selling center.

Auction programs are fixed each year by committees consisting of representatives of growers, brokers, and buyers. These men decide upon the dates of sales as well as the quantity to be offered at each selling center. In the United States, Argentina, and Uruguay practically the entire clip is disposed of by private sale. But before 1939 a small quantity of Argentina wool from European estates was shipped to London for sale by public auction.

In the United States, a majority of the growers usually sell their wool at or soon after shearing time, but the time varies from year to year. In all years some, and in some years a large portion of the wool is sold by contract well in advance of the shearing, usually in December, January, and February. On the other hand, in all years some, and in some years a large proportion, of the clip is consigned by producers to dealers or to growers' cooperative associations. This consigned wool may not be sold for several months or for one or more years. The volume of contracting prior to shearing, by dealers and manufacturers and the volume of consigning by growers depends upon their anticipation as to price trends in the world markets.

Some farmers and ranchers have marketed wool cooperatively for over 75 years. Now over 150 wool-marketing cooperatives exist in the United States. They range in size from small, informal, local pools which handle less than a carload of wool a year to state and regional associations marketing several million pounds annually. Twenty-three of the larger wool-marketing associations own the National Wool Marketing Corporation, a federated joint sales agency which markets wool from forty states. In recent years about 20 to 30 per cent of the annual clip of the country have been marketed through cooperatives. Wool-marketing cooperatives have proved their worth to members who marketed their wool through these channels over a period of years. These associations, by fostering competition, have helped reduce marketing margins and increase returns to wool growers.

Foreign imports have to travel many miles to get to American markets. The distance from Australia via the Panama Canal is 11,453 miles. The distance from New Zealand, also via the Panama Canal, is 9,827 miles. The South American and South African producers have relatively shorter distances to ship their produce: 6,760 and 7,821 miles respectively.

These great distances make our textile industry, the largest and most efficient in the world, dependent upon sources of supply from 6,000 to 12,000 miles distance. This multiplies the financial risks of peacetime production since requirements must be estimated and purchased far in advance of sales at prices which usually differ from replacement prices. This is even more reason why our domestic wool production should be stimulated to higher production.

Synthetics

The expansion in the production and the improvement in the quality of man-made fibers may greatly affect the competitive position of wool. Some of these fibers compete directly with wool in apparel, household and industrial uses. They are delivered to textile mills in good condition for manufacturing operations. There is no preparation of the fiber or scouring necessary as there is with wool. Their uniformity and freedom from defects tend to reduce greatly the costs of making fabrics. New developments in high-speed spinning and weaving machinery have placed an increasing premium on these advantages. Poorly prepared wools, which lack uniformity and require much manual handling in preparation, are at an increasing disadvantage because of these man-made fibers.

The relative importance of man-made fibers, from the point of view of quantities consumed, is increasing. The total amount of these fibers used in this country from substantially less than the total domestic consumption of apparel wool during the early thirties to more than four times the total domestic consumption of apparel wool during the early fifties is very telling. Consumption of the newer synthetic fibers, which had come into use mainly since 1940, and some of which may compete more directly with wool, amounted to 75 per cent of the quantity of apparel wool consumed in 1952. The large increase in consumption of

man-made fibers in relation to consumption of apparel wool was associated with big advances in the price of wool compared to the price of these fibers.

Domestic consumption and price per pound of apparel wool and man-made fibers, United States, 1930-1952.[1]

Year	Domestic Consumption				Price Per Pound	
	Apparel wool*	Man-made Fibers			Wool***	Viscose staple fiber
		Total	Rayon and acetate	Other**		
	million pounds	million pounds	million pounds	million pounds	cents	cents
1930	200.7	118.8	118.8	---	76.2	60.0
1931	237.7	158.9	158.9	---	63.1	57.5
1932	188.5	155.3	155.3	---	47.0	45.8
1933	245.5	217.2	217.2	---	67.0	40.0
1934	167.6	196.9	196.9	---	81.6	34.5
1935	319.0	259.1	259.1	---	74.8	34.0
1936	299.8	322.4	322.4	---	92.0	30.5
1937	274.2	304.7	304.7	---	101.9	27.1
1938	219.6	329.4	329.4	---	70.4	25.0
1939	293.1	458.1	458.1	---	82.7	25.0
1940	310.0	487.0	482.0	5.0	96.3	25.0
1941	515.7	604.8	591.8	13.0	108.8	25.0
1942	571.4	646.8	620.8	26.0	119.1	25.0
1943	591.9	695.1	656.1	39.0	117.8	24.4
1944	577.0	753.8	704.8	49.0	119.0	24.8
1945	589.2	821.9	769.9	52.0	117.7	25.0
1946	609.6	931.5	875.5	56.0	102.6	25.4
1947	525.9	1,037.0	987.9	50.0	124.2	31.9
1948	485.2	1,224.6	1,149.6	75.0	164.6	36.4
1949	339.0	1,084.1	992.1	92.0	166.4	35.8
1950	436.9	1,492.4	1,351.4	141.0	199.2	36.1
1951	382.1	1,486.1	1,276.1	205.0	270.5	40.0
1952	346.9	1,472.5	1,212.5	260.0	165.3	39.5

* Scoured basis

** Includes nylon, Vicara, Orlon, Dynel, Dacron, Acrilan, Fiberglass, and Vitron among others

*** Territory wool, fine combing, 64's and finer, cleaned basis, at Boston

Adapted from Textile Organon (39)

1. Economics of Preparing Wool for Market and Manufacture. D. W. Carr and L. D. Howell. United States Department of Agriculture. Technical Bulletin No. 1078, November, 1953. Washington, D. C.

Five synthetic fibers--Nylon, Orlon, Dynel, Dacron, Acrilan--and the regenerated protein fiber, Vicara, are likely to be a serious threat to the competitive position of poorly prepared wool. The rapid expansion in production of these fibers, improvement in their quality or adaptability, and the development of new fibers indicate the seriousness of the threat.

A brief description of these fibers is given here as a basis for indicating the extent to which they are meeting and can meet some of the important attributes of wool that had made it preferred for many centuries. If they can meet some of the more important quality characteristics of wool, their advantages as to uniformity and lower cost of production are likely to have a severe impact on the demand for wool.

Nylon is one of the better known of the truly synthetic textile fibers. It is derived from coal, air, water, petroleum, corn cobs, cotton seed hulls, and natural gas. It can be drawn into a very fine and uniform fiber. The uniformity in both length and fineness of this fiber is much greater than that for wool. Nylon has an unusual combination of strength, elasticity, toughness, resistance to abrasion, and other characteristics that make it well adapted for certain apparel and other uses. The blending of Nylon with wool improves the attractiveness of the fabric, adds to the strength-to-weight-ratio which permits sheerness, increases durability, and contributes to other improvements in fabrics. Expansion of the use of Nylon to products now made of wool is promising but the extent to which Nylon is competitive with or supplementary to wool is uncertain.

Vicara, a regenerated vegetable-protein fiber, is derived from corn and is substituted for wool in some blends. It is light and soft but not highly durable. It is found to be useful by those manufacturers of

wool who carbonize the fabric after weaving since it can be put through the carbonizing process without apparent damage. It is used in overcoats, suits, sweaters, dresses, socks, scarves, blankets, and some sport shirts. It feels warm and soft, resists shrinkage and moths, has good absorption, and burns like wool.

Orlon is close to Nylon in tenacity. It is stretch resistant, dries rapidly, and is resistant to molds and other microorganisms. It is derived from coal, limestone, petroleum, natural gas, water and air. It was developed during World War II. Only the filament was produced in significant quantities before 1952. Orlon offers a combination of warmth, bulk with light weight, resistance to creasing, and durability hitherto unavailable in artificial fibers. These features suggest that Orlon should find a wider use in winter, fall and spring clothing.

Dynel is a synthetic resin fiber derived from natural gas, salt, air, water, and limestone. Fineness, uniformity, and other characteristics of Dynel fibers along with their relative high resistance to creasing, shrinkage, wear, fire, moths, mildew, and fungus apparently make them suitable for use in suits, dresses, socks, blankets, and a number of other products for which wool is now used. However, unless it is blended with natural fibers or Nylon, Dynel is very susceptible to heat or static.

Dacron is one of the newest of the fibers to appear as a competitor of wool. It is derived from petroleum, natural gas, air, and water. It was synthesized in 1946 in England. It had reached the pilot-plant stage in this country by 1951. Dacron is produced as filament yarn and as staple fibers. The possibilities of Dacron were extensively explored and production began in 1953. It is reported that the wrinkle resistance of Dacron fibers is so good that creases and pleats will remain after months of wear. It is used in suits, dresses, shirts, ties, and sweaters.

Acrilan is the trade name of a new acrylic fiber. In 1951 it was planned that Acrilan would soon be produced at an annual rate of 30,000,000 pounds. It is derived from coal, limestone, petroleum, natural gas, water, and air. Its characteristics include warmth with light weight, softness to touch, resistance to moths, shrinkage, creasing, and to outdoor deterioration. Products made from it include suits, dresses, socks, sport shirts, and blankets.

In addition to the specific properties noted for each of the man-made fibers, certain common features of artificial fibers give them significant advantages over wool for manufacture. Because they are machine-made their quality and uniformity can be controlled to a greater extent. Because they are man-made, their properties and physical characteristics can be modified as the raw components pass through their many chemical processes. Large expenditures for research have brought about greatly improved synthetic fibers and lowered their cost of production. Wool fibers can be modified only to a limited degree.

These are indications that even their present stage of development is sufficient to allow at least some of the synthetics to match wool in price and also compare favorably in such properties as drape, warmth, and resilience. In the past these properties have given wool an almost exclusive preference for some uses. In strength, resistance to abrasion, and creasability some of the true synthetics apparently are superior to wool.

For centuries wool growers have been perhaps justifiably content with the inherent quality of their product. Until recent decades this satisfaction was hardly subject to question because wool had no close competitors. Certain properties still give particular advantages to wool for wearing apparel. There is, first, the "feel"--a rich, warm softness to the touch, a lightness and a resilience which is difficult to duplicate with other

fibers. Its qualities with regard to holding and excluding heat have no counterpart and its strength and durability have only recently been surpassed by artificial fibers. Its structural quality which prevents a feeling of clamminess in fabrics made from it is still a major hurdle to be overcome in the development of comparable synthetics.

Synthetic fibers, however, offer considerable savings in the cost of labor to manufacturers of fabrics because of their greater uniformity and their greater adaptability to standardized machine techniques. This is likely to result in greater discounts against poorly prepared wool.

The bid of the new man-made fibers for wool's traditional markets is a competition of ideas, not of fiber qualities. This was the premise stated by Giles E. Hopkins, the Technical Director of the Wool Bureau, recently in an address in Ohio (March, 1953). No synthetic fiber has wool's basic and essential qualities, he declared, and scientists doubt that these properties can ever be produced synthetically.

> The problem facing producers of synthetic fibers, (said Mr. Hopkins) is the triple necessity of combating the superior performance characteristics of wool, of changing the process and thinking of an industry developed through centuries of craftsmanship, and of destroying the long-established conviction of the public that wool is superior in functional performance and esthetic appeal.
>
> We are already hearing suggestions that the inherent and easily recognized wool qualities such as hand, drape and texture are acquired tastes and that the inherent hand, drape and texture of the synthetics can be sold to the consumer as more desirable.
>
> For the first time in history the wool growers, as fiber producers, are placed in direct competition with fibers conceived in the test tube and produced in the spinneret. Wool growers are no longer competing with other agricultural producers. They are competing directly with a strong and aggressive industry.
>
> We are living in a world of rapidly expanding population, and in a country which has a constantly rising standard of living. We may expect, in the years to come, a tremendous

increase in textile fiber demand. There is room for many new fibers in a large production to meet this expanding market.[1]

Representatives of wool promotion groups list in addition nine scientific reasons why we should wear wool. They are: (1) its elasticity, which is unique; (2) its strength, which is as great as metal; (3) its lightness; (4) its heat-retaining power-wool gives a still air space around the body; (5) its water repellancy--it is never clammy; (6) its power to transmit ultra-violet light because the fabric is more open; (7) its natural characteristic as a covering for the body--it is next to the skin of sheep, too; (8) its luster and softness, and (9) its durability.

As nice as these statements sound, the fact still remains that wool production is falling off and synthetics are taking a larger portion of the apparel market.

For many years the functional properties of wool have stood out as prime objectives for fiber synthesis. Superficial wool-like properties such as fuzziness and initial bulk can be built into yarns from all synthetic fibers by chopping them into short lengths (staple fiber), suitable crimping of the fibers, and finally by spinning them into yarn by procedures used for wool or cotton. Yarns prepared in this manner from Rayon and Acetate have been used with great success in women's clothing and summer suits, but they are deficient in liveliness and crease resistance, particularly at high relative humidities, and tend to lose their bulk in service. Today with new fibers and production methods they stand up better.

All these shifts in preference for one fiber over another are clearly traceable to two influences--sociological and economic. The first is represented by changes in the manner of living of our people,

1. Woolfacts for Educators. March, 1953. The Wool Bureau, Inc. New York, New York. p.1.

as for instance the steady trend to lighter weight clothing since homes, work places, and automobiles have come to be universally and automatically heated. Also in the same equally pronounced trend toward informality in dress is the widespread adoption of sports clothing. This is the by-product of increased opportunity for leisure and recreation.

The economic influence is even more clearly discernible--Nylon made possible a longer wearing, more glamorous stocking at a lower manufacturing cost; Nylon tire cord made possible a stronger, longer wearing tire at a lower manufacturing cost. "Under our American system of free enterprise, a better product at a lower cost is automatically 'elected' by the purchasing public, no matter how badly the defeated candidates may feel about it."[1] Synthetic fibers may not be basically better fibers than wool in all respects but the consumer seems to, by his purchase, register his satisfaction with the styling, price, serviceability and light weight characteristics of these newer fabrics from the man-made fibers.

Synthetic fibers now take one-fifth of the market and, according to Stanley Hunt of the Textile Economic Bureau, we can expect a drop in the use of silk, wool, and cotton in proportion to their current importance in textiles. In 1939 there were 460,000,000 pounds of synthetics used. Only ten years later, in 1949, over a billion pounds of synthetic fibers were used. Now Rayon alone has exceeded 1,300,000,000 pounds. Where is it all going to end? The other basic fibers are not decreasing in use to any extent. Therefore, it would appear that the synthetic fibers are filling the gap since fiber consumption has greatly increased.

One of the greatest fallacies in the fiber and textile world today is that wool is being challenged by the new synthetic fibers which are coming into the market in such wide varieties. Wool is not being challenged.

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1. A statement made by a representative of E. I. du Pont de Nemours and Company.

It is merely being used in new ways. Wool has always been blended with other fibers in modern textile technology either to obtain certain desired effects or to reduce the price. Today, it is still being blended, using fibers that did not exist a decade ago. When Rayon was introduced into the market it was predicted that it would not be many years before wool would be only a blending fiber. It was thought Rayon imparted certain qualities to wool which would make it more desirable to the public. After twenty-five or thirty years of experimentation and promotion wool and Rayon blends have found their markets within certain price ranges. Today there is proportionally no more, if not less, Rayon being used in blends with wool than during the 1930's.

An appraisal of wool's role in blends with the new fibers is still in the experimental stages. Wool is being used in increasing amounts as the upgrading of quality fiber to compensate for missing characteristics, or to overcome inherent liabilities. The new blends do not represent any new types of textiles in construction, patterns, or color values. The wool producers will have to do something to aid their competitive position in an effort to prevent any greater influx of synthetics.

Price Factors

The United States imports a substantial part of its wool requirements. Therefore, the price levels of wool in the United States are determined, to a considerable extent, by world conditions of supply and demand. Production of wool in individual countries may change rather sharply but year-to-year changes in world production are relatively small. Moreover, since wool and meat are joint products of the sheep enterprise, both quantitative and qualitative changes in the production of wool may occur as a by-product of decisions regarding the production of meat.

Since production cannot respond quickly to changes in price, the price of wool is greatly influenced by short-term changes in demand. Demand for raw wool is derived from consumer demand for the various apparel, household, or other finished wool products. Consumer demand for wool goods varies from country to country because of differences in real income, climate, custom, and other factors. In the United States demand changes from year to year with changes in income and with changes in fashion.

During a period of years demand for wool in this country has been influenced by improvements in heating and transportation facilities and by the development and consumer acceptance of synthetic fibers. Consumer expenditures for clothing in the United States was found to be closely associated with disposal income. As most items of clothing are fairly durable and individuals are equipped with smaller or larger stocks, expenditures for clothing may be sharply contracted or expanded in any given year to meet the current situation with respect to income and to other needs. Although consumer expenditures for clothing varies directly with consumer purchasing power, only a small part of the year-to-year variation in mill consumption of apparel wool, as well as all textile fibers in the United States, was found to be associated with year-to-year changes in disposal income, textile prices, and trend.

A partial explanation probably lies in the fact that mill consumption reflects anticipated future, rather than current consumer demand for textile products. Because of the many time-consuming processes that characterized the wool textile and apparel industries, there is considerable period between the time the raw wool is put into process and the time the manufactured goods become available at retail. As the industries are not integrated, purchases by retailers must be preceded by a series of purchases and sales at the preceding stages of production and distribution.

Price and price differentials of fine wool at Boston and London markets.[1] Department of Agriculture.

Year	Price			Duty	Price differentials, after adjustment for duty, of domestic at Boston and British Dominion at:	
	Domestic at:	British Dominion at:				
	Boston 1/	Boston 2/	London 3/		Boston	London
	Cents Per Pound, Clean Basis					
1929	98.1	81.0	74.3	31.0	13.9	7.2
1933	67.0	45.9	45.5	34.0	12.9	12.5
1936	92.0	66.2	65.4	34.0	8.2	7.4
1937	101.9	71.9	73.0	34.0	4.0	5.1
1938	70.4	50.4	51.9	34.0	14.0	15.5
1939	82.7	52.4	*	34.0	3.7	*
1940	96.3	61.4	*	34.0	- .9	*
1941	108.8	69.5	*	34.0	- 5.3	*
1942	119.0	75.4	*	34.0	- 9.7	*
1943	117.8	75.9	*	34.0	- 7.9	*
1944	119.0	72.1	*	34.0	-12.9	*
1945	117.7	75.2	*	34.0	- 8.5	*
1946	102.6	76.1	*	34.0	7.5	*
1947	124.2	102.9	114.6	34.0	12.7	24.4
1948	164.6	159.9	179.5	25.5	20.8	40.4
1949	166.4	170.3	182.0	25.5	29.4	41.1
1950	199.2	198.7	216.2	25.5	25.0	42.5
1951	270.5	259.1	262.7	25.5	14.1	17.7
1952	165.3	150.0	166.8	25.5	10.2	27.0

* London auctions suspended August, 1939, to August, 1946.
1/ American yield, for territory fine, combing (staple 64's and finer)
2/ American yield, for Australian 64's-70's good top-making wool, in bond ex-duty at Boston.
3/ Bradford yield, for Dominion 64's-70's-80's good medium fleeces at London auctions.

Purchases by dealers are guided in the timing and volume of their buying by advanced commitments of their customers and by their expectations as to price tendencies in raw material markets. Since the greater part of the product of the industry consists of so-called style lines, the styling of which is determined at the early stages of manufacturing, purchases

1. Wool and Wool Textiles. Basic Industrial Data. Compiled by National Industrial Conference Board, Inc. 1953. Table 9.

must be made well in advance of actual need. Contraction and expansion of inventories resulting from errors of anticipation may be largely responsible for the extreme and somewhat erratic fluctuations in consumption by the mills, and they are an important factor in the demand for raw wool.

With wool textile manufacturing centered in countries that have insufficient supplies of home-grown wool, a world price is established in the markets of the surplus-producing countries. The comparison of London and Boston prices indicates that, in general, open market prices of domestic wool follow the pattern established in foreign markets, however, they normally tend to be somewhat lower than duty paid prices of approximately comparable grades of foreign wools, partly because of different methods of preparation for market of domestic as compared with foreign wools.

Since market prices for similar United States and Australian wools approximate each other, why are the returns to the American wool grower so discouraging? The answer lies in the difference between production in the two countries. Australian wool production is based on vast expanses of grazing land acquired at low cost, relatively lower labor costs than in the United States, and virtually no competition from other agriculture pursuits in large areas of the country. Furthermore, because income from wool exports is the mainstay of the Australian economy, the government pursues a policy of utmost encouragement to wool growers, both by seeking their counsel in matters pertaining to their industry and by devoting large appropriations for its healthy maintenance and improvement.

Exactly the reverse condition exists in the United States sheep industry. It is kept in a minor position and there is no recognition of the necessity of its products to the national welfare. The government policy toward the sheep industry has been subordinated to other interests. Government agencies have repeatedly by-passed wool growers' counsel in deciding issues which affect their interests profoundly.

Today the government is appealing to the wool growers' sense of responsibility toward the national welfare so as to expand its wool production. If American wool growers are to respond to the nation's urgent need for a strengthened effort to produce more of the strategic wool and lamb crop, they must have assurance that the government policy toward their industry will justify investment.

Price Support Program

President Eisenhower, on July 9, 1953, requested the Department of Agriculture to make a survey of the wool industry and make recommendations as to a solution of the problem. The result of this survey was the report "Achieving a Sound Domestic Wool Industry," which came out in December, 1953.

At the same time, July 9, 1953, the President requested the Tariff Commission to investigate, under the provisions of Section 22 of the Agricultural Adjustment Act, whether:

> ... wool of the sheep subject to duty under paragraphs 1101 (a) and 1102 of the Tariff Act of 1930, carbonized wool of the sheep subject to duty under paragraph 1106 of the said act, or sheep's-wool tops subject to duty under the said paragraph 1106 ...[1]

are being imported into this country in such quantities at to materially interfere with the price support program for wool.

This report came out in February, 1954 and recommended an increase in wool tariffs. After considering these reports and other material, the President recommended a new price support program for wool. The result of these recommendations was the National Wool Act of 1954 passed by the Congress.

President Eisenhower, in his message on farm problems which was sent to Congress on January 11, 1954, said:

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1. Report to the President, "Wool, Wool Tops, and Carbonized Wool." Investigation No. 8 under Section 22 of the Agriculture Adjustment Act, as amended. United States Tariff Commission. Washington, D. C., February, 1954. p. 1.

Price support for wool above the market level has resulted in heavy accumulations of wool--now nearly 100 million pounds--by the Commodity Credit Corporation and the substitution of imported for domestic wool in our home consumption. Two-thirds of the wool used in the United States is imported; yet our own wool piles up in storage.

A program is needed which will assure equitable returns to growers and encourage efficient production and marketing. It should require a minimum of governmental interference with both producers and processors, entail a minimum of cost to the taxpayers and consumers; and align itself compatibly with over-all farm and international trade policies.

It is recommended that:

1. Prices of domestically produced wool be permitted to seek their level in the market, competing with other fibers and with imported wool, thus resulting in only one price for wool--the market price;

2. Direct payments be made to domestic producers sufficient, when added to the average market price for the season, to raise the average return per pound to 90 per cent of parity;

3. Each producer receive the same support payment per pound of wool, rather than a variable rate depending upon the market price he had obtained. If each grower is allowed his returns from the market, efficient production and marketing will be encouraged. This has the further advantage of avoiding the need of governmental loans, purchases, storage, or other regulation or interference with the market. Further, it imposes no need for periodic action to control imports in order to protect the domestic price support program;

4. Funds to meet wool payments be taken from general revenues within the amount of unobligated tariff receipts from wool;

5. Similar methods of support be adopted for pulled wool and for mohair, with proper regard for the relationship of their prices to those of similar commodities.[1]

On October 12, 1954, Secretary of Agriculture Benson announced that the incentive support price for the 1955 clip would be 62 cents per pound grease or raw basis. The mohair support price for the 1955 clip would be 70 cents per pound. The present support loan rate is 53.2 cents per pound. The 1955 support rate will reflect 106 per cent of the wool

1. U.S. News and World Report. Jan. 22, 1954. p.83.

parity as of September 15, 1954. The incentive program is to go into effect on the 1955 clip and payments are to be made at the close of the market year (March 30, 1956).

The act called for the support of wool prices by means of loans, purchases, direct payments, or other methods. The support price may be as high as 110 per cent of parity but only the direct payment method of support may be used for supporting above 90 per cent of parity. The direct payment method involves a cash subsidy to wool producers equal to the difference between the average market price and the support rate. Therefore, the full effect of the incentive level of wool supports will not be felt in market prices of wool. Wool support provisions of the 1954 act were enacted under the assumption that wool is a strategic material and for the purpose of increasing domestic wool production to 300,000,000 pounds from the 230,000,000 pounds produced in 1954.

The incentive payments are made to producers if the average price falls below the level fixed by the Secretary of Agriculture. Funds will come from a 70 per cent allocation from the tariff receipts from wool imports into the United States. Secretary Benson said the new method of encouraging wool production will permit domestically produced wool to move freely into consumption at open market prices. This, he added, should benefit both consumer and producer by stabilizing the industry without increasing the consumer price for woolen goods. Many sheep growers were disappointed that the Secretary did not set the incentive level at the maximum of 110 per cent of parity permitted in the Wool Act.

The wool producers wanted the level to be set at the maximum of 110 per cent. They said this would be in line with the objectives of the National Wool Act of 1954. The act expresses the desire to increase wool production from the present 229,400,000 pounds to 300,000 000 pounds.

This goal would be more likely met if the maximum level of 110 per cent had been used as the claim of the wool producers. To increase production to this level the growers feel that much higher prices are needed than the present level under which breeding flocks have been liquidated, as happened before. The domestic wool industry feels that the best way to protect wool production in the United States is through an adequate tariff on wool originating in lower cost producing countries. Therefore, such protection is not available under the present program or the new program under prevailing conditions. Because of this the producers think the new program of price support should include a level high enough to compensate for the lack of protection.

SUGGESTIONS

It would appear that the wool producers can no longer point to the inherent advantages of wool and hope people will continue to buy their product. The problem cannot be solved by imposing a higher tariff, as some of the wool producers would like.

From the time the first tariff was passed on wool in 1816 we have had to import some wool consistently, either as raw wool or as semi-manufactured or manufactured wool. The past tariffs have not always been enacted as protective measures for wool. In some cases the tariff rates were imposed to gain revenue or lowered because the government had a surplus of revenue.

There are several influences which have affected the tariff rates. The rates were generally raised as the result of economic recessions or depressions or in some cases as the result of politics. Foreign competition has been only one of many influences affecting the tariff rates on wool.

The trend in wool production was generally upward until the turn of the century. At that point the great expanses of land in the West began to run out. The free and open ranges were no longer there. The people were becoming very conservation minded. Great areas of land were being exposed and exploited and left to go to waste. Our natural resources, of which the open range was an important one, were being wasted. The government changed its land policy and land became harder to get for

sheep raising. There was a great increase in the population of the country. This resulted in former grazing land being used to grow food for the increased population. It became increasingly harder for the sheep growers to get cheap land. The Taylor Grazing Act changed the management of federal land and cut down the amount of grazing land available to the sheepmen.

At the same time costs of sheep production in this country increased. Labor became scarce because few Americans wanted to be sheepherders. It was becoming more difficult to make a profit. During World War II government price controls were such that the number of sheep began to decline. This decline continued throughout the post-war period when the demand for wool reached its greatest heights.

Wool production declined severely following World War II even with tariff protection. Some wool producers say foreign competition was the cause since the tariff was too low. This may be true. But it appears there are many other factors influencing the decline in wool production. The major one is the lack of cheap usable land. Why is this so? It has become profitable to use much of the land formerly used for sheep production for other agricultural products. Our country today is relatively highly developed and is no longer a frontier nation. Wool production needs a frontier environment with a great expanse of land which does not have competitive uses. This situation does not exist in the United States any longer.

Government policies in respect to the wool industry have not been conducive to continued high production for many years. At the same time the government hopes the wool producers will maintain high wool production. The Australian government recognizes the great importance of wool to

that country's economy. It is true that wool does not hold the important economic position in the United States that it does in Australia, but it is an extremely important material during time of war.

The problem now is how to stimulate the industry to higher production. Some of the wool producers say a higher tariff is the answer and they have asked for an increase of 15 cents a pound. The Tariff Commission and the Department of Agriculture agree that an increased tariff is called for under the provisions of Section 22 of the Agricultural Adjustment Act. But the Eisenhower Administration is committed to a freer trade policy.

To increase tariffs now on a unilateral basis would cause severe international tensions. It would completely break down the agreements signed under the name of GATT. The free world is looking for the United States to lead the way toward freer trade. If wool received higher tariff protection the spiral might begin and there is no telling where it might end.

An increase in the tariff rate would necessarily result in a similar increase in the price of wool. This could easily be a very serious blow to wool producers instead of an aid. Price wise, synthetic fibers are in a very good position to compete with natural fibers. To increase the price of wool would cause substitutions of other fibers by manufacturers to prevent the price of fabrics from going up also. As long as wool prices remain in about the same relation to other fiber prices as now exist, the use of wool is not likely to fall off to any large degree. Thus it would appear that an increase in the tariff rate is not the solution.

The best solution presented to date is the incentive price program. This plan would work without directly influencing the market price of wool. It is a direct payment program with domestic wool selling on the open market at current market prices. Only time can tell what will result.

We need to develop a sound and prosperous domestic wool industry in this country. This would require increased efficiency in production and marketing to better the competitive position of sheep and wool as a farm and ranch enterprise. Efficiency should be increased in processing and distributing and further improvements should be made in the quality of the fleece.

Research should be carried on in many fields to improve efficiency. Diseases which are harmful to sheep should be studied so that losses can be cut and profits increased. Nutrition problems should be studied to find a way to increase the weight of lambs. Technological developments found to be profitable in other segments of the agricultural industry should be adopted where possible.

The sheepman can no longer sit on the fence and watch the world go by; he must begin to try to aid himself. A much more vigorous educational program must be undertaken to inform the producers of the need for the adoption of improved production and marketing practices. Stress must be put upon the quality of wool and its acceptability to the processor and consumer. Direct interest in domestic wool rests primarily with the wool producers and they must provide much of the initiative and leadership for such programs. The wool producer cannot expect help if he is not willing to help himself.

The sheepmen can help by improving breeds of sheep to meet the changes in grazing practices. Improved breeding methods should be studied to improve the competitive position of wool growers and increase profits.

A program must be adopted to improve farm and ranch management practices. This includes conservation programs to increase the carrying capacities of the grazing lands and the administration of public lands

to assure their full utilization. There is a limited amount of land available to the rancher and he must use it as efficiently as possible.

More effective ways of controlling predatory animals must be found. New poisons have been developed which have been used effectively by the Fish and Wildlife Service to combat coyotes in the open range areas. In other areas a more intensive application of known measures are needed.

Plans have been set up to raise $2,000,000 to $2,500,000 a year to promote lamb and wool. This money will be spent for advertising, research, and other promotion activities. The money for this program will come from the incentive payments of the producers and from the government through the tariff monies collected from the tariff on wool. This is the first time in history that the wool producers have had an opportunity to collect a fund for the promotion of wool and lamb. The wool growers should respond to this measure since it is likely to be a great help.

During the National Wool Growers Association Conference in Salt Lake City, Utah, in December, 1954, one of the speakers, O. R. Strackbein, the Chairman of the Nation Wide Committee of Industry, Agriculture, and Labor on Import-Export Policy, attacked the GATT as being an illegitimate international organization. Such actions as this will not help the wool industry. It would appear that some wool producers will attack anything that stands in the way of their receiving a higher tariff rate on wool. At the present time any abandonment of GATT may do far more harm to more people than it would help the wool growers.

The National Wool Growers Association decided to support the new incentive price program. It was not an easy decision for them to make since the industry firmly believes that any long-range solution to the problem must include a fair and equitable tariff. Even though the

producers believe that a tariff is the solution they will give the new price support program their full support. President Ray W. Willoughby of the National Wool Growers Association said that this program is a vast improvement over the past and recent programs. The wool growers should now accept this program and work to make it successful. At least they should give it a try and see if it will work.

Provisions for an adequate and efficient labor force must be made by the government. The Farm Placement Service is attempting to fill orders for sheepherders and other laborers as needs arise but qualified and dependable men are scarce.

Since sheep eat forage which would be unattractive to other animals, they bring about a more complete use of our range and pasture. They can convert marginal land into income-producing land. This land is a very important asset to this country and should be used as effectively as possible.

A bill was introduced into Congress in 1954 to help aid the grazing problem. This was the Hope-Thye-Aiken Forest Grazing Bill. It met with great opposition from the start. The opposition convinced sportsmen that large areas of the country would be closed to hunting and fishing if the bill became law. Bird watcher clubs in Florida and garden societies in New Jersey were convinced the bill would destroy the National Parks. Many other organizations were brought into the opposition by any means available. This bill has nothing to do with parks. It would not take one acre away from the federal domain nor would one acre be transferred from one agency to another. The bill would not interfere with the right to hunt or fish.

One opponent wrote in the Denver Post that this

> ... is only one step in a process by which a relatively few Western ranchers hope to gain virtual control of the Western national forests for their own benefit.

> These are the forests which belong to all the 160 million people of the country--the forests which protect the head waters of all the important Western rivers--the forests which are used annually by millions of Americans for recreational purposes.
>
> For the protection of streams, if for no other reason, these forests are so important that the general welfare requires that they must be kept permanently in public ownership, under the supervision of experts in forest management.[1]

There is a very definite need for a uniform federal grazing policy. To get such a policy enacted into law it will be necessary to explain to the general public the difficulties stock raisers face when they must operate their business according to bureau regulations and whims of individual bureaucrats. The stockmen have no proper right of appeal or a basic law to follow. There are few Congressmen who are well informed on this subject. Therefore, the sheep producers will have to join the fight and counteract the effects of the opposition.

Representative Wesley A. D'Ewart of Montana stated before the eighty-ninth Annual Convention of the National Wool Growers Association:

> In the control, management, and use of public lands, we must never lose sight of the fact that our greatest asset of all is a strong, upright, free citizenry--the kind of people envisioned by our forefathers when they wrote the Constitution with its limited powers of government. Such a citizenry can be developed, not by bureaucratic control, but by use of its capabilities through encouraging each man in the wise use of our great natural resources. Our public lands are a great heritage. Their best development, use and control will come in the American way--as a result of intelligent forces at work within rather than by arbitrary forces imposed from without.[2]

It is paramount to a program for increasing production of wool that the federal land policy in the Western states be thoroughly viewed and revised with a view toward more efficient utilization of natural resources. Unless the rancher can depend consistently upon the use

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1. Salt Lake Tribune, April 29, 1954. "Other View Points," an editorial.
2. The National Wool Grower, February, 1954, p.13.

of federal lands he can never hope to increase production. To do so would endanger his present and future investments. The present federal policy fails to given the sheep rancher any assurance of permanency and he can be removed at will. If the government wants the sheepman to increase production then it must give some indication that land will be available.

Today the frontier of the livestock industry lies in the application of management practices which will restore and maintain ranges at their maximum of both forage and livestock. This is particularly true of the winter ranges of the Intermountain region.

The wool producers must face the fact that synthetics are here to stay and reorient their thought to meet synthetic competition. We are in a new era today. Man no longer has to be at the mercy of the elements. Man is no longer dependent upon a silkworm, a sheep, or a cotton plant to afford him clothing. For centuries the natural fibers have been man's source of cloth. Now he has man-made fibers.

The impact of synthetic fibers and the chemical revolution are just now beginning to be strongly felt by the textile industry. Natural fibers still hold a strong place in world favor, but the future is uncertain. The wool producers must do everything they can to make their product desirable. The makers of synthetic fibers say they will make a new fiber for each new situation that comes up. One fiber will not replace another but it will find its logical place in the textile world. The consumption of textile fibers has greatly increased in the last decade and so far synthetic fibers have taken the biggest proportion of the increase. The wool industry will have to advertise its product if it wants to keep up.

Wool still has inherent advantages over synthetics and as long as wool is not priced out of competition it can expect to be used. Since wool had not kept up with the great increase in fiber consumption it was imperative that additional fibers be produced to meet the demand.

The acceptance of wool as the ideal fiber has become so much a part of our thinking that we seldom stop to consider why wool has gained such a place in our daily lives. Wool is a very versatile fiber and widely used for many things. The synthetic fiber makers have not been able to reproduce all the many qualities of wool in one fiber. The synthetic producers can, however, reproduce the desired qualities in one fiber and other properties in another. Wool still holds the advantage but the wool producers have to keep their competitive position if they want to hold this advantage.

Synthetic fibers can surpass wool in some specific areas of use but generally they are used in blends with wool. With expanding demands for fibers wool should also increase in use along with other fibers. This will only be possible if the American wool producers wake up and make their operations efficient. Otherwise foreign producers will fill the gap.

Fiber consumption has been increased 150 per cent in the past 50 years while the population increased 60 per cent. So there is room for great expansion in fiber production since this trend appears to be continuing. The synthetic fibers do not have to push out natural fibers and are not likely to do so. They will serve to augment nature's limited resources. It is up to the wool producer to maintain his proportion of the market.

The growth of cooperatives in the marketing of wool is one of the most hopeful indications for the future prosperity of the wool industry. It is useful to sell wool cooperatively because of the small size of most of the individual clips. The Western producer is in a better position but can be greatly aided by marketing his wool through cooperatives.

The ignorance of the average sheepman--particularly the smaller producers--concerning the quality of wool is a good reason for using cooperatives to market wool. A cooperative or association can hire

expert graders and agents. These services tend to place the seller more nearly on terms of equality with the buyer.

President Ray W. Willoughby stated that he thought the outlook for the industry is far brighter today than it has been for years. If the industry should work to better itself it can overcome the present problems. The new incentive price support program is a step. Maybe it is the right one!

If the wool producers will give it a chance and understand its possibilities, a brighter future may be in store for the industry. The producers should not sell their wool in too big a hurry. Selling pressure always forces prices down. Some form of auction such as is now used in Australia could be worked out here.

The producers must realize that they can make a greater profit by selling at the highest price possible. The incentive payment is to be the difference between the average price for the year and the incentive price level. Therefore, the grower must receive the best price possible if he wants to take advantage of the incentive program. If the grower should sell for less than the average price he will lose, but if he can receive a price above the average price he will gain. The producer must, therefore, prepare his wool in the best way he possibly can for market. By this preparation he can expect to obtain a higher price.

Also the producer must take care in the selection of breeding stock and in culling in order to improve the quality and yield of his wool clip. Improved quality and yield mean a better price on the open market and a better incentive payment.

CONCLUSION

The wool producers have for years blinded themselves to the true facts. They have demanded higher tariff protection as the cure of their problem of decreased production. They would today still push this demand for their own selfish interests at the expense of the world's security. Any change in the world tariff picture now which would result from an increase in the wool tariff could cause extreme economic trouble in the free world. The free nations are looking to the United States for leadership in a policy of freer trade.

The wool producers place the blame for the decline in production of wool in this country upon foreign imports of wool from cheap labor areas. They do not stop to consider that these foreign competitors have completely changed their production and marketing methods to overcome the tariff barriers. Our wool producers in the past did nothing except demand higher tariff protection.

Anyone who looks at the problem objectively can find many reasons for the decline in wool production in the United States other than foreign trade. We are no longer a frontier nation but an advanced industrial nation. We cannot expect to compete with frontier areas in frontier crops without some effort being put forth to help our position.

During the 1953 convention of the National Wool Growers Association at Long Beach, California, the Association reaffirmed its historical

and traditional position that an adequate tariff on wool is the proper way to safeguard the sheep industry of the United States.

At the same convention it was stated that the Association opposed government price controls of any kind, since it has now been proved beyond doubt that controls cannot accomplish the intended results, but bring only confusion to our economy. This seems strange in the light of the Association's desires on tariffs. A tariff is not too far from price controls, yet the Association believes strongly in a tariff. Also the Association has always asked for the maximum levels permissible under the past price programs. It is true that the price support program which was passed as a temporary measure in 1934 under the Agricultural Adjustment Act has not solved the farm problem. In the same sense the wool tariff has not solved the wool producers' problem in over 139 years.

The tariff may have helped to divert the attention of the domestic wool growers from the advantages of adequately preparing their wool. The Wool Labeling Act of 1939 was another bill passed, under pressure by wool producers, to protect wool producers. This act was designed to protect wool from the competition of other fibers, including reclaimed wool, by identifying the fibers contained in fabrics by means of labels. The growers are hiding behind these measures and have made little attempt to strengthen their competitive position.

Since the producers' returns have been greater as the result of a tariff than if they had attempted to prepare their wool adequately, naturally they have looked to protection instead of trying to improve their competitive position. The Australian wool producers have greatly improved their exported wool so as to compete more effectively. This was partly because only well prepared wool could meet the competition of domestic wool protected by high tariffs, but mainly because duties were

levied on the actual weight, including grease and dirt, of imports up to 1922. Well skirted fleeces, with the heavy shrinking parts removed, contained more wool per pound, grease weight, than unskirted fleeces. A duty on the grease weight thus gave these fleeces a considerable advantage. Since the Tariff Act of 1922 became effective, the duty has been applied against the clean content. By that time, however, expert skirting and classing of fleece had become well established in Australia and New Zealand.

Cy Cress, an agricultural writer for the Denver Post, said that wool growers have literally cut their own throats through their failure to keep abreast of wool handling techniques of important wool-producing nations throughout the world. Mr. Cress spent a year in Australia studying their wool methods. It is his opinion that our methods of handling fleece are close to the level employed by primitive Eastern nations. We are a half century behind Australia, New Zealand, South American, and South Africa. He recommended we send men to Australia and New Zealand to study their methods and bring technicians from those countries to the United States to help us.

Brett Gray, the Secretary of the Colorado Wool Growers Association, said,

> Here's the Biggest Trouble, Mr. Sheepman! We are too old-fashioned! We are standing on a grassy hill, tending our flock, and watching the rest of the world go by. ...
>
> ... We sit in the slough of depression because we have thought it beneath our dignity, or unimportant, to take note of the unbelievably rapid social evolution going on all about us.
>
> We made the mistake of assuming that our products--lamb and wool--would continue to "sell themselves" on merit alone, as they had in the past. We seemed to think need for modification was unnecessary. Or, did we really "think" at all? No! We ignored this need--as we ignored the scientist who gave the American consumer a cotton cloth that would not shrink--and our market shrank in direct proportion. We failed to recognize and acknowledge the great strides in the home

> and office heating field. The heating business brought Palm Beach climate as far as Nome, and with it a demand for lighter, more durable wool clothing. Even in the face of this demand, we did little. We have not taken matching strides, and we have been left far behind ...
>
> ... To go further in my personal indictment of the American sheepman, I need to only point to our marketing systems for lamb and wool. For the most part, we have only one chance a year to shear a sheep, package and market that fleece; yet I have seen "blacks," tags, and offsorts mixed in the bags with top-quality fleeces. I have seen sheep bells, baling wire, old shoes, and newspapers cross the grading tables. I have seen Hampshire and Rambouillet fleeces packed into the same bags, and, worst of all, I have seen too many sheepmen sell their wool to the first bidder who opened his mouth.[1]

Unless the wool producers do something about their marketing procedures and the preparation of their fleece they can expect to lose out to foreign wool producers and to synthetic fibers.

Textile mills are moving to the South. Many new plants are being built and new high speed machines are being used. Unless the wool producers take better care in their preparations, synthetics may take over. These new mills can very easily be converted to use the man-made fibers and take advantage of their superior qualities for use in manufacturing. The synthetic fibers can be made into any length or size desired. All the fibers will be uniform and without defect. If the wool producers continue in their same old way they will lose out to synthetics.

Developments in recent years emphasize the fact that neither manufacturers or consumers are so closely attached to domestic wool that they will not shift to substitutes in response to favorable prices and quality. Public policy relating to wool has emphasized price supports and protective measures for domestic wool. Increased competition, particularly from man-made fibers, emphasizes the importance of improvements in quality, production efficiency, preparation, and marketing.

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1. Brett Gray, "What's Wrong with the Sheep Business?" The National Wool Grower, April, 1954, p.39.

Table 1. Estimated Consumption of Wool, Clean Basis, by Chief Consuming Countries, Average 1934-38, Annual, 1948.[1]

Country	Average 1934-38		1948	
	Consumption million lbs.	Percentage of total per cent	Consumption million lbs.	Percentage of total per cent
United Kingdom	440	21.5	440	18.1
United States	344	16.8	693	28.5
France	229	11.2	278	11.4
Germany:				
Western Zones	132	6.4	82	3.4
Soviet Zone	55	2.7	22	0.9
Total	187	9.1	104	4.3
Soviet Union	154	7.5	132	5.4
Japan	110	5.4	24	1.0
Italy	68	3.3	104	4.3
Belgium	62	3.0	66	2.7
Other countries	456	22.2	589	24.3
Estimated world total	2,050	100.0	2,430	100.0

SOURCE: Technical Bulletin No. 1041, U. S. Department of Agriculture, October, 1951. (Table 4, Page 7)

1. The position of the National Wool Growers Association in response to the United States Tariff Commission Investigation No. 8 under Section 22 of the Agriculture Adjustment Act, as amended, on wool. August 31, 1953. The National Wool Growers Association. Page 21. Table VII. Salt Lake City, Utah.

Table 2. World Imports of Raw Wool (Actual Weight, Million Pounds)

Country	Average 1935-39 Rank	Amt.	Average 1946-50 Rank	Amt.	1951 Rank	Amt.	Per cent of World 1935-39	1946-50	1951
United Kingdom	(1)	629	(2)	557	(2)	507	27	21	22
France	(2)	403	(3)	466	(3)	354	17	17	15
Germany	(3)	260	(6)	137	(7)	108	11	5	5
Belgium	(4)	226	(4)	219	(5)	126	10	8	6
United States	(5)	225	(1)	776	(1)	555	10	29	24
Japan	(6)	188	(9)	28	(4)	120	8	1	5
Italy	(7)	79	(5)	178	(6)	119	3	7	5
U.S.S.R.	(8)	68	(8)	43	(9)	42	3	2	2
Poland	(9)	46	(7)	48	(8)	50	2	2	2
Total of above:		2,124		2,452		1,981	91	91	86
Total for the world:		2,322		2,694		2,291	100	100	100

The U. S. has virtually tripled the share of wool it has imported from 10 per cent in 1935-39 to 29 per cent in 1946-50. In 1951 it imported one-fourth of the world's supply of wool.

SOURCE: The position of the National Wool Growers Association in response to the United States Tariff Commission Investigation No. 8 under Section 22 of the Agriculture Adjustment Act, as amended, on wool. August 31, 1953. The National Wool Growers Association. Page 16. Table II. Salt Lake City, Utah.

Table 3. Estimated World Sheep Production.

Country	1938-1939	1948-1949	1949-1950	1950-1951	1951-1952	1952-1953*	1953-1954*
British Commonwealth:							
Australia	111.1	108.7	112.9	115.6	117.6	123.1	---
New Zealand	31.9	32.8	33.9	34.8	35.4	36.2	---
South Africa**	39.0	32.6	31.9	31.4	34.8	35.5	---
United Kingdom	26.8	18.2	19.5	20.4	20.0	21.7	22.5
India	44.0	38.0	38.0	38.0	40.0	40.0	40.0
Pakistan		6.1	6.0	6.0	6.0	6.0	6.0
Canada	3.0	2.2	2.1	2.0	1.5	1.6	1.7
Other Commonwealth	25.0	28.6	28.5	27.1	27.4	27.5	27.6
Total:	281.0	267.0	273.0	275.0	283.0	292.0	---
Other Countries:							
Argentina	45.9	48.0	50.0	54.0	55.0	54.7	---
United States	51.3	30.9	29.8	30.6	32.1	31.9	30.9
Uruguay	18.0	22.6	23.0	23.4	26.0	27.0	---
Spain	24.0	19.0	20.0	23.5	24.0	26.0	27.0
Turkey	23.1	25.8	23.1	23.1	24.8	26.5	25.8
Brazil	14.1	13.4	13.5	14.3	15.9	16.3	---
France	9.9	7.9	8.0	8.0	9.8	9.8	11.0
Chile	6.0	6.0	6.0	6.2	6.2	6.2	6.2
French Morocco	10.2	8.5	9.1	10.4	11.0	13.0	---
Persia	14.9	11.0	11.5	13.0	14.0	15.0	---
Yugoslavia	10.1	11.0	11.7	10.0	10.3	10.5	11.4
Italy	9.5	9.4	9.5	10.0	10.5	10.2	---
Iraq	5.5	7.1	7.1	7.5	9.0	10.0	---
Greece	8.1	6.6	6.3	6.9	7.3	7.9	---
Peru	15.0	17.3	17.5	17.8	18.2	18.5	---
Irish Republic	3.2	2.2	2.2	2.4	2.6	2.9	2.9
Soviet Union, China, and Eastern Europe***	134.0	120.0	134.0	145.0	153.0	162.0	---
Other Asia	16.0	16.0	15.0	16.0	16.0	17.0	---
Other Europe	14.0	10.0	12.0	11.0	11.0	11.0	---
Other America	12.0	15.0	15.0	15.0	15.0	15.0	---
Other Africa	29.0	27.0	28.0	30.0	31.0	31.0	---
Total:	474.0	435.0	452.0	478.0	503.0	522.0	---
World Total:	755.0	702.0	725.0	753.0	786.0	814.0	---

--- Not available.

* Provisional.

** Excluding Basutoland and South West Africa Territory. Estimates for these are included in "Other Commonwealth."

*** Soviet Union, Albania, Bulgaria, Czechoslovakia, Eastern Germany, Hungary, Poland, Roumania, China, and Dependences, Outer Mongolia, Tibet.

SOURCE: World Wool Digest. July 7, 1954. Vol. V. No. 14. p.167. Published by International Wool Secretariat and Wool Bureau, Inc. New York and London.

Table 4. Part I. Estimated World Production of Raw Wool (by Country)
(Million pounds, greasy basis)

Country	Ave. 1934-8	1948-1949	1949-1950	1950-1951	1951-1952	1952-1953*	1953-1954**
British Commonwealth:							
Australia	995	1057	1142	1118	1080	1300	1260
New Zealand	300	367	390	390	407	418	421
South Africa***	261	227	225	240	249	268	276
United Kingdom	111	81	88	89	93	102	105
India	96	72	72	72	72	72	72
Pakistan		30	30	30	30	30	30
Canada	16	12	10	10	7	8	9
Other Commonwealth	7	8	8	7	9	8	8
Total	1786	1854	1965	1956	1947	2206	2181
Other Countries:							
Argentina	376	425	415	430	420	407	397
United States	446	294	261	259	260	277	285
Uruguay	114	144	163	185	188	190	202
Spain	65	104	90	85	85	85	90
Turkey	52	76	71	67	73	78	80
Brazil	39	40	39	43	45	47	53
France	53	40	41	42	49	49	53
Chile	35	45	45	44	45	45	45
French Morocco	41	26	28	31	34	38	38
Persia	38	30	25	32	35	37	38
Yugoslavia	33	34	36	35	37	38	38
Italy	31	35	35	36	37	37	38
Iraq	16	33	27	29	30	30	32
Greece	18	16	16	16	17	19	21
Peru	15	17	18	19	20	20	20
Irish Republic	17	12	12	14	14	15	16
Soviet Union, China, Eastern Europe****	450	472	494	533	557	570	580
Other Asia	33	39	37	40	42	43	40
Other Europe	77	47	51	54	50	51	50
Other America	30	30	30	32	32	32	32
Other Africa	37	25	23	29	34	35	36
Total	2016	1984	1958	2055	2104	2143	2180

* Revised.
** Provisional.
*** Including Basutoland and South West Africa Territory.
****Soviet Union, Albania, Bulgaria, Roumania, Czechoslovakia, East Germany, Hungary, Poland, China and Dependencies, Outer Mongolia, Tibet.

SOURCE: World Wool Digest, July 7, 1954, Vol. V, No. 14. (New York: International Wool Secretariat and Wool Bureau, Inc.), p.167.

Table 4. Part II. Estimated World Production of Raw Wool (total figures)
(Million pounds, greasy basis)

Total	Ave. 1934-8	1948-1949	1949-1950	1950-1951	1951-1952	1952-1953*	1953-1954**
World Total	3802	3838	3923	4011	4051	4349	4360***
Of which is Merino	1475	1323	1365	1370	1325	1538	1515
Crossbreed	1518	1672	1716	1765	1820	1888	1910
Total Apparel	2993	2995	3081	2135	3145	3423	3425
Other	809	843	842	876	906	926	935
Clean Equivalent:							
Merino	695	690	719	742	719	833	820
Crossbreed	965	1074	1105	1143	1179	1216	1230
Total Apparel	1660	1764	1824	1885	1898	2049	2050
Other	410	421	421	438	453	463	470
Total	2070	2185	2245	2323	2351	2512	2520

* Revised.
** Provisional.
*** This figure is rounded from the total of the individual countries, which amounts to 4,361 million pounds.

SOURCE: World Wool Digest, July 7, 1954, Vol. V, No. 14. (New York: International Wool Secretariat and Wool Bureau, Inc.), p.167.

Table 5. Apparel Wool: Production and Consumption, Scoured Basis, United States, 1930-52.

Year	Production shorn and pulled wool*	Consumption of apparel wool**
1930	201,400,000	200,700,000
1931	215,100,000	237,700,000
1932	204,800,000	188,500,000
1933	212,800,000	245,500,000
1934	207,700,000	167,600,000
1935	208,600,000	319,000,000
1936	205,100,000	299,800,000
1937	206,300,000	274,200,000
1938	206,700,000	219,600,000
1939	207,500,000	293,100,000
1940	210,200,000	310,000,000
1941	219,900,000	514,400,000
1942	220,900,000	560,500,000
1943	215,600,000	603,300,000
1944	204,000,000	577,000,000
1945	188,000,000	589,200,000
1946	169,600,000	609,600,000
1947	153,100,000	525,900,000
1948	136,900,000	485,200,000
1949	120,400,000	339,000,000
1950	119,100,000	436,900,000
1951	118,700,000	382,100,000
1952	127,400,000	346,900,000

* Reported production converted to scoured equivalent at estimated yield of 44 per cent for shorn and 75 per cent for pulled wool.
** As reported by the Bureau of the Census.

SOURCE: Economics of Preparing Wool For Market and Manufacture. United States Department of Agriculture. Technical Bulletin No. 1078, November, 1953. D. W. Carr and L. D. Howell. Washington, D. C. p.19, Table 6.

Table 6. Apparel Wool: Domestic and Foreign Mill Consumption, United States, 1930-1952.

Year	Consumption*				
	Total	Domestic**	Foreign	Percentage of total	
				Domestic	Foreign
	million pounds	million pounds	million pounds	per cent	per cent
1930	200.7	149.9	50.8	74.7	25.3
1931	237.7	203.9	33.8	85.8	14.2
1932	188.5	175.4	13.1	93.1	6.9
1933	245.5	224.6	20.9	91.5	8.5
1934	167.6	145.0	22.6	86.5	13.5
1935	319.0	293.5	25.5	92.0	8.0
1936	299.8	229.1	70.7	76.4	23.6
1937	274.2	174.8	99.4	63.7	36.3
1938	219.6	194.2	25.4	88.4	11.6
1939	293.1	242.0	51.1	82.6	17.4
1940	310.0	215.1	94.9	69.4	30.6
1941	515.7	223.1	292.6	43.3	56.7
1942	571.4	244.5	326.9	42.8	57.2
1943	591.9	203.6	388.3	34.4	65.6
1944	577.0	150.9	426.1	26.2	73.8
1945	589.2	120.4	468.8	20.4	79.9
1946	609.6	106.9	502.7	17.5	82.5
1947	525.9	161.2	264.7	30.7	69.3
1948	485.2	239.0	246.2	49.3	50.7
1949	339.0	184.1	154.9	54.3	45.7
1950	436.9	186.8	250.1	42.8	57.2
1951	382.1	110.0	272.0	28.8	71.2
1952	346.9	98.4	248.5	28.4	71.6

* Scoured basis.

** Consumption of domestic wool from 1948 to 1952 equals total domestic consumption of apparel wool less imports of duty-paid apparel wool.

SOURCE: W. D. Carr and L. D. Howell. Economics of Preparing Wool For Market and Manufacture. Table 8. p.38.

Table 7. Comparison of Sheep Operations in the Intermountain Region of the United States, 1949, and in New South Wales, Australia, for 1948-49.

United States	Cash and Non-Cash Costs Per Sheep (Excluding Operator's Labor and Capital Costs)	Australia
	Cash Costs	
$2.57	Wages and contracts	$ .55
.44	Shearing and crutching	.12
5.34	Materials	.88
	Stock charges	.01
.84	Rates and taxes	.09
	Insurance	.04
	Wool selling costs	.16
	Cartage	.05
.59	Miscellaneous expenses	.08
$9.87	Total cash costs	$1.95
	Non-Cash Costs	
.54	Depreciation	.19
$10.41	Total cash and non-cash costs	$2.14

United States	Net Returns Per Sheep	Australia
$13.53	Gross returns	$5.16
9.87	Cash costs	1.95
$ 3.66		$3.21
.54	Non-cash costs	.19
$ 3.12	Net income	$3.02
2.00*	Less 4% interest on capital	.65
1.56**	Less operator's labor	.39***
.44	Return to management per sheep	$1.98
1%	Percentage return on dollar invested to management	12.2%

* Actual cost $2.53.

** Allowed same amount for operator's labor as paid sheepherder in the U.S. ($2,400).

*** Australian study allows $350 per annum for operator's labor.

SOURCE: The Position of the National Wool Growers Association in Response to the United States Tariff Commission Investigation No. 8 under Section 22 of the Agricultural Adjustment Act, as amended, on wool. August 31, 1953, National Wool Growers Association. Salt Lake City, Utah. Table XV, p.29.

Table 8. Some of the Conservation Measures Which Have Been Carried Out Under the Agricultural Conservation Program in Seventeen Western States During the Period 1936-49, and the Estimated Amounts Still Needed.

State	All stockwater developments		Pasture and range seeding		Eradication of competitive plants on range		Construction of supplemental stockwater storage	
	1936-49 accomplishments	Amount still needed	1936-49 accomplishments	Amount still needed	1936-49 accomplishments	Amount still needed	1936-49 accomplishments	Amount still needed
	Number	Number	Acres	Acres	Acres	Acres	Number	Number
Arizona	8,254	21,750	33,711	1,990,000	104,432	3,279,000	585	4,000
California	10,679	48,000	729,666	7,970,000	133,645	1,183,500	1,047	7,000
Colorado	17,595	25,000	727,990	6,000,000	126,323	3,460,000	1,444	6,000
Idaho	3,204	14,465	425,015	3,810,500	19,119	1,450,000	39	745
Kansas	30,960	57,050	783,309	3,602,000	493,972	1,500,000	231	6,500
Montana	41,187	69,000	1,711,700	6,350,000	25,484	2,500,000	318	3,000
Nebraska	49,642	64,000	1,465,027	7,000,000	1,680	200,000	---	10,000
Nevada	1,665	5,500	88,616	1,115,246	3,620	1,081,200	90	500
New Mexico	23,166	44,200	100,529	7,100,000	1,319,135	6,000,000	3,223	15,000
North Dakota	18,146	44,005	1,588,921	4,050,000	1,297	350,000	25	2,500
Oklahoma	83,852	51,927	1,769,020	7,742,009	468,133	4,350,000	---	9,500
Oregon	6,680	21,632	1,106,631	3,912,678	32,338	2,190,000	277	5,038
South Dakota	81,789	69,500	1,923,291	6,500,000	---	750,000	---	1,000
Texas	226,618	188,200	3,835,139	13,898,500	20,648,467	42,631,000	---	13,200
Utah	9,313	18,200	360,573	3,575,000	152,378	2,673,000	399	6,000
Washington	1,923	12,404	1,185,530	2,463,393	45,372	1,300,000	82	2,000
Wyoming	33,863	37,600	638,330	9,178,000	58,497	4,500,000	1,428	15,000
Total	648,536	792,433	8,472,998	98,277,326	23,705,892	79,397,700	9,188	106,983

SOURCE: Increasing Domestic Wool Production. Presented by Mr. O'Mahoney, February 5 (legislative day, January 10), 1952. 82nd Congress, Senate, Document No. 100. United States Government Printing Office, Washington, D. C. Table No. 3, page 5.

Table 9. Per Capita Consumption of Wool, Rayon, Cotton, and Silk, United States, 1920-50. (1)

Year	Wool (scoured basis) (2)			Rayon	Cotton	Silk	Total
	Apparel (3)	Carpet (4)	Total				
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1920	2.48	0.47	2.95	0.08	26.51	0.36	29.90
1921	2.76	0.40	3.16	0.18	23.96	0.48	27.78
1922	2.84	0.85	3.69	0.22	26.45	0.52	30.88
1923	2.78	0.99	3.77	0.29	27.89	0.55	32.50
1924	2.19	0.81	3.00	0.37	23.10	0.52	26.99
1925	2.17	0.85	3.02	0.50	26.54	0.66	30.72
1926	2.17	0.75	2.92	0.52	27.36	0.65	31.45
1927	2.17	0.80	2.97	0.84	30.14	0.71	34.66
1928	1.93	0.84	2.77	0.83	26.43	0.72	30.75
1929	2.08	0.94	3.02	1.10	28.11	0.80	33.03
1930	1.62	0.51	2.13	0.96	21.13	0.67	24.87
1931	1.91	0.58	2.49	1.27	21.27	0.70	25.73
1932	1.50	0.33	1.83	1.24	19.61	0.60	23.28
1933	1.94	0.57	2.51	1.72	24.13	0.56	28.92
1934	1.32	0.49	1.81	1.55	20.90	0.48	24.74
1935	2.49	0.77	3.26	2.02	21.57	0.57	27.42
1936	2.33	0.82	3.15	2.50	26.93	0.52	33.10
1937	2.12	0.82	2.94	2.35	28.12	0.49	33.90
1938	1.68	0.50	2.18	2.52	22.33	0.44	27.47
1939	2.22	0.79	3.01	3.48	27.54	0.42	34.65
1940	2.33	0.74	3.07	3.63	29.80	0.36	36.86
1941	3.84	0.99	4.83	4.41	38.72	0.19	48.15
1942	4.14	0.31	4.45	4.58	41.56	(5)	50.59
1943	4.39	0.24	4.63	4.78	38.37	(5)	47.78
1944	4.15	0.33	4.48	5.07	34.48	(5)	44.03
1945	4.20	0.40	4.60	5.48	32.16	0.01	42.25
1946	4.29	0.90	5.19	6.16	33.84	0.10	45.29
1947	3.63	1.19	4.82	6.82	32.20	0.02	43.86
1948	3.29	1.41	4.70	7.80	30.28	0.05	42.83
1949	2.26	1.08	3.34	6.60	25.58	0.02	35.54
1950 (6)	2.81	1.28	4.09	8.85	30.86	0.07	43.69

1. Includes military and textile exports.
2. Before 1942 wool was considered as consumed when carded or otherwise advanced beyond scouring or raw-stock dyeing. Beginning 1942 wool was considered as consumed (1) on the woolen system when laid in mixes and (2) on the worsted system when entering scouring bowls. Beginning August, 1948, consumption on the worsted system is taken as the sum of the noil and top production. Consumption of raw wool on the cotton and other spinning systems is not included in 1946 and later years. It is included in earlier years. Consumption data also included raw wool consumed in batting and felt manufactures before 1947, but not in 1947 and later years.
3. For 1920-41 includes all domestic wool and all foreign wool except Donskoi, Smyrna, East Indian, Chinese, and similar wools particularly suitable for floor coverings. Data for these years include a small quantity of duty-free foreign wool and exclude a small

quantity of duty-paid foreign wool. Data for later years include all duty-paid foreign wool and exclude all duty-free foreign wool.

4. For 1920-41 include only Donskoi, Smyrna, East Indian, Chinese, and other foreign wools particularly suitable for floor coverings. Data for these years include a small quantity of duty-paid foreign wool and exclude a small quantity of duty-free foreign wool. Data for later years include all duty-free foreign wool and exclude all duty-paid foreign wool.
5. Less than 0.005 pounds.
6. Preliminary.

Table 10. World Consumption of Major Apparel Fibers.

	1938	1948	1949	1950	1951	1952	1953*
	(in million pounds)						
Consumption:							
Cotton	13,668	13,849	13,611	14,138	15,878	15,467	16,072
Wool	2,083	2,535	2,436	2,668	2,275	2,306	2,557
Rayon**	1,929	2,454	2,703	3,492	4,030	3,585	4,079
Total	17,680	18,838	18,750	20,298	22,183	21,358	22,663
Population (by million)	2,161	2,357	2,385	2,420	2,444	2,474	2,505
Per Capita Consumption: (pound per head)							
Cotton	6.4	5.9	5.7	5.7	6.4	6.4	6.4
Wool	0.9	1.1	1.0	1.1	0.9	0.9	1.0
Rayon	0.9	1.0	1.1	1.3	1.8	1.5	1.6
Total	8.2	8.0	7.8	8.4	9.0	8.8	9.0

* Provisional.
** Production.

SOURCE: Table 9. Albert M. Hermie. Prices of Apparel Wool. United States Department of Agriculture, Technical Bulletin No. 1041. October, 1951. Washington, D. C.

SOURCE: Table 10. Wool Digest. International Wool Secretariat and the Wool Bureau, Inc. Vol. V, No. 12, June 9, 1954, p.142.

Table 12. Parity Price for Shorn Wool.

Year	Parity Price (cents per pound)	Price Received as per cent of parity
1929	30.3	103
1933	21.8	81
1936	23.2	115
1937	24.2	125
1938	23.1	85
1939	22.5	102
1940	22.8	125
1941	24.0	145
1942	27.2	145
1943	29.3	140
1944	30.7	135
1945	31.3	131
1946	34.9	120
1947	42.0	99
1948	45.4	103
1949	44.4	112
1950	51.5	118
1951	56.5	157
1952	59.8	90

Note: Parity prices for wool through 1949 are computed from the standard formula in effect prior to January 1, 1950, and are based on index of prices paid, interest and taxes as revised January, 1950. Parity prices beginning January, 1950, are effective parity as currently published.

SOURCE: Wool and Wool Textiles--Basic Industrial Data. Compiled by National Industrial Conference Board, Inc., 1953, Table 8.

Table 11. Wool: CCC Inventories, June, 1943 to date.
(Millions of pounds, actual weight)

Quarter	Inventory		Total*
	Grease wool	Scoured wool	
1943:			
June	7.9	.1	8.0
1944:			
June	216.1	14.6	230.7
1945:			
June	298.8	20.1	318.9
1946:			
June	443.3	34.6	477.9
1947:			
June	365.5	42.9	408.4
1948:			
June	103.0	45.3	148.3
1949:			
June	30.5	41.0	71.5
1950:			
June	.2	.3	.5
1951:			
June	-----	----	-----
1952:**			
June	-----	----	-----
1953:			
June	94.4	6.3	100.7

* Does not include unclassified or unappraised wool.
** Program changed from purchase to loan program.

SOURCE: National Wool Growers Association, Statement Before the U. S. Tariff Commission, August 31, 1953. Table XI, page 25.

Table 13. Comparisons Between Domestic and Foreign Market Wools.

Factors influencing values	Domestic wools	Foreign wools
Preparation of fleece.	Entire fleece bundled, including inferior and heavy parts grown on belly, legs, and neck.	Bundles are composed of only good body wool; inferior parts removed in skirting.
Tags.	Amount varies.	None.
Britch.	Bundled in fleeces.	Removed at the time of skirting.
Heavy dung locks.	Often bundled in with fleeces.	Removed prior to shearing or when fleeces are prepared for market.
Stained.	Skirts, bellies, dirty locks, etc. are rolled in fleeces.	Removed in skirting.
Paint.	Fleeces from some sections are very heavily painted; average considered high.	Relatively small amount.
Burrs, seeds, straws, etc.	Even if necks, skirts, or any other parts of fleece are obviously burry or chaffy, they are bundled in fleece.	Burry and seedy fleeces must be kept separate. Parts of fleeces containing vegetable material removed in skirting.
Stuffed fleeces	Occasionalfleeces from some sections contain heavy foreign material for weight. Found to a greater degree in wool from farming sections.	Rarely found.
Strings.	Mostly paper; an occasional fleece carries harmfultying material.	Seldom tied.
Gray and Brown.	Often shows lack of care in keeping colored wool separated from white. Much wool carries occasional colored fiber. Care in separating colored fleeces from white fleeces will tend to broaden use in instances where whiteness is required.	Great care is exercised to keep colored fibers separated from white. Comparative freedom of black fiber from Australasia and South Africa stimulates a demand for their use in white yarn and fabric and in dyed pastel shades.