## SITUATION

BUREAU OF AGRICULTURAL ECONOMICS UNITED STATES DEPARTMENT OF AGRICULTURE

COMMERCIAL FERTILIZER USED ON COTTON, UNITED STATES, 1928-44

U. S. DEPARTMENT OF AGRICULTURE

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Considerable increases have occurred during recent years in the quantity of fertilizer used per acre on cotton. The proportion of cotton land receiving fertilizer also has increased. This is responsible for part of the recent large increases in yields.

## THI OOTTON SITUATION

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SOME EFFECTS OF THE END OF THE EUROPEAN WAR.ON DQMESTIC. TEXTILES
Miíls Assured of a High Level
Of Demand for Eotton Textiles
Until After V Den
The cotton textile situation for a number of months has been such that the armed forces have had to make certain substitutions, such as accepting tent twill where they were unable to obtain as much duck a.s they desired, Nejther the civilians in this country nor the exporters have been able to obtain anything like all of the cotton textiles they desired. This situation with respect to textiles for civilians and for export is expected. to continue for at least until after VJ-Day. Should there be any increase in total cotton textile production before the end of 1945, as is at least a possibility, the supply of textiles available for civilians and for export would probably increase, inasmuch as no net increase in military takings is in prospect. It remains to be seen how long it will be before the demand for textiles drops sufficiently to bring about a reduction in cotton textile production. However, demand will be maintained at least untill sometime after VJ-Day.

Textile Labor Situation May Ease
Some Follawing Cutbacks in..
Other Lines of War Production
It is variously estimated that up to several million workers will be discharged from war work in the next 6 to 9 months. A good many service men and women, will be returned to civilian life. Although many of the war workers who will.be discharged will be women and overaged men, who prefer to withdraw permanently from the labor force, the majority will be men and women of active working ages, who will seek employment elsewhere, perhaps after taking a vacation.

Those who originally worked in cotton mills are more likely to accept employment in cotton manufacturing than those without such experience. Many, however, realizing that the cotton textile industry is one of the lowest paid industries in the nation, may fully explore other employment possibilities before willingly accepting positions in cotton manufacturing. Those who have never had experience in cotton mills are even less likely to be attracted to cotton textile manufacturing, if alternatives are available. Included in such alternatives, at least for a time, are the various types of unemployment benefits for which they will be eligible upon separation from their much higher paying (relative to cotton manufacturing) war jobs.

A mill which is satisfactorily maintaining operations on a two-shift basis may be interested in undertaking the resumption of a third-shift operation only if able to recruit, within a fairly short period, the workers necessary to man the additional shift. Consequently, if only a small percentage of the number of workers required to properly man the shift were available at a time, the mill might prefer to continue on a two - shift basis rather than resume the third shift.

With third-srift operation in some mills now involving premium pay, in accordance with the decision by the National War Labor Board in the recen cotton textile wage case, there is the further question of whether net profi after payment of taxes, would be increased sufficiently by the addition of third-shift operation, to merit its being undertaken. :

Of course, some mills are unable to keep their present shifts fully manned, whether it be one, two, or three on which they are opereting. Any easing in the labor situation confronting cotton mills; therefore, may provide relief for this group of mills and enable them to increase, or at least maintain, their level of output, before either they or other mills operating under the same labor situation would feel justified in adding an additional shift.

## No Slackening of Military

Demand for Cotton Textiles in
Sight for Some Months
Present indications point to a continued high level of cotton textile needs on the part of the armed forces, at least to the end of the calendar year 1945. For months the militery procurement agencies, though taking a $\mathrm{v} \in \mathrm{ry}$ large percentage of the total domestic production of cotton textiles, have, nevertheless, been unable to buy all they wanted, especially of the particular qualities best suited for the particular end use: In fact, the need for duck and tent twill was so great, and mills were experiencing such difficultires in meeting schedules, that the War Department assigned a numbe of officers and enlisted personnel to mills last December as means of increa ingoutput of these textiles. The critical situation for these particular textiles has been eased somewhat as a result of this action. The armed forc nevertheless continue to need large quantities of these and many other textiles; which have been taken in large volume over a period of several years, and their total takings would continue large, even though some dectin from present levels could occur later in the year.

The shifting of large numbers of troops from Europe to the Orient involves tremendous supply problems. Many of the textiles which will be mos suitable for use in the Pacific are different from those which were used in Europe and Africa. Consequently, the military demand for such textiles may be larger in the months ahead than at any time during the war period, but it is possible that these needs may have been anticipated and the pipeline of supplies built up to the point that no increase is necessary.

An effort has been made to rehabilitate mills in some European countries and, in turn, to draw on such sources for needed military textile Although some textiles may be acquired by Allied military forces in that manner, such foreion purchases of textiles by the' American armed forces would in no event be so large as to heve any significant effect on the domestic textile situation.

## Civilian Supplies of Cotton

Textiles to Continue Below
Demand Until After IU Day
$\therefore$ No relief is in sight for the present tight cotontextile"situation confronting civilians.; The purehasing power of civilians is more than sufficierit to bupport a much larger than prewar level consumpiton of cotton textiles. However, even though cotton textile production is substantially above the prewar high, the quantity available for civilians is materially below the average prewari level. In considering the tight cotton textile situation it is Heexpul to view it from at least two standpoints. The first of these involves the total level of textele supplies available to cirtlians; the second involves the "distribution of such textiles.

The orily two chances of an increase in the total supply of textiles available to civilians are. (I) that total cotton textile production can be increased and that such increase at least be shared in by domestic civilians; and (2) by a reduction in combined military and export takings. Thére is no reason to anticipate any marked increase in total cotton textile production, although there is a possibility of some increase after cutbacks in other lines of military production have reached sizeable proportions, providing such cutbacks result in a higher level of employment in cotton mills. It is indeed uncertain when military takings will decliné, thereby allowing an increase in civilian supplies although it is nossible that some such increase in civilian supplies may occur late this year. Until after VJーDay, civilian supplies ore expected to remain tight.

There has been considerable criticism, both in and out of the Government, of the high proportion of available textiles that have found their way into higher-priced lines, with the result that the supply of low and mediumpriced clothes has been reduced very much more than the high-priced lines. Being both aware of this problem and desirous of correcting it, the Office of Price Administration and the War Production Board have underitaker a succession of corrective actions. These programs will presumable be unaffected by the end of the war in Europe.

SONE EFHRCTS OF GHE END OF THE EUROPFANT WAR ON THE WORID TRADE IN RAY COTTON
World Import Demand for Raw
Gotton May Be About Double
1941-44 Annual Raite 1/
Despite the various obstacles to a resumption of cottion textile production at anything like prewar levels, the international.trade in cotton in 194546 is expected to be about double the average of the last year or two, when it totaled only $3-1 / 2$ to 4 million bales per year. This gain is mainly attributable to the expected resumption of cotton textile production on the continent of Europe, excluding Russia. 2/

I/ In this section it is assumed that 75 percent of the rayon staple fiber produced during the yeers $1934-38$ and 90 percent of that produced in 1942 was used in the cotton system of European countries; that it would be impractical to expect a higher percentage of available machinery capacity to be utilized in the future than was used in the past; that cotton spinning capacity is about 15 percent below the 1934-38 average and rayon staple fiber productive capacity about 15 percent below the $19 \div 2$ level; and thet 425 pounds of rayon staple fiber is the approximate equivalent of a 478 -pound (net weight) bale of cotton. 2/ In this report the term "Continental Europe" does not include the U.S.S.R.

Inventories of raw cotton are, of course, quite low in that area, and working stocks of cotton all along the distributive line must be restiored.". Therefore, international trade in cotton will inorease a good bit mores. rapidy than will the consumption of cotton in the countries to which? ${ }^{4}$ tas is. destined.

Before the war France, Belgium, and the Netherlands.together consumed about 1.8 million bales of cotton per year. The rest of Continental Europe consumed about 3.7 miliion bales. Since 1940 , however, Iittle or no cotton has 'been used by Continental Europe and, as a result, the mills have been largely dependent on rayon staple fiber. Investigation since the liberation in some of these countries has revealed that damage to the mills averaged no more than 5 to 15 percent. Cotton textile production has already been resumed by some mills.' The extent of damage for all countries is not known, but it is assumed that the average damage for the Continent was about 15 per cent with German and Polish mills possibly sustaining the heaviest damage.

During the same 5 years ( $1934-38$ ) the production of rayon staple fiber on the Continent was equivalent to about 600,000 bales of cotton, of which about three-fourths, or 450,000 bales, is assumed to have been used in "cotto mills." The combined use of cotton and rayon staple fiber on cotton spinning machinery in Continental Europe during the 5 .years (1934-38) is therefore estimated to heve averaged nearly 6 million bales per year. Assuming that. the average effective consumption capacity between now and August 1, 1946, will have been reduced below the $193^{4}-38$ average by about 15 percent, it would be possible to handle about 5 millior bales of cotton and rayon per year, if machinery is operated the same number of hours as before the war.

- The production of rayon staple fiber increased greatly from the prewar period and in 1942, the latest year for which data are available, the production of rayon staple fiber on the Continent is estimated to have been the equivalent of about $3,350,000$ bales of cotton. Assuming that 10 percent of this was used on other than cotton spinning machinery, the equivalent of about 3 million bales of rayon staple fiber would have been used on cotton machinery in 1942. However, rayon productive capacity since 1942 may have declined as a result of the war by about the same percentage as did cotton consumption capacity. Consequently, the present rayon staple fiber production capacity for use on the cotton system would be slightly over 2.5 millior bales per year.
.. On the basis of these assumptions and computations, it would then appear that there may be a total annual consumption capacity (the average between now and the end of the $1945-46$ season) for cotton and rayon of about 5 million bales. This is equal to approximately twice the current annual quantity of rayon staple fiber available for use on the cotton syst The capacity remaining for cotton would also be about $2-1 / 2$ million bales.

There are a number of factors which will tent to prevent the situation actually developing in the next year or two as just outlined. In the first place, it must be recognized that the assumptions as to the extent of damage and so forth on which this analysis is based may be wide of the mark. All that can be claimed is that they appear to be within reasonable limits based on such meager information as is avallable. Furthermore, there are a number of other factors 'which'will influence the Earopean textile situation.

The number of available workers in some countries will have been lessened materially by the war. Young people have not entered the textile field in the usual numbers. Many former textile worlers have moved away either as forced laborers or of their own choice, so that in any evert they must return or be replaced. So many people will have lost their lives in the war that there may be a real shortage of manpower in some areas. In some towns, there may be a shortage of dwellings for textile workers, which may hamper preduction of textiles, even though the mill escaped damage or is easily repaired. In other instances, the number of available workers may permit more hours of operation per week than was customary before the war.

Another group of factors which will affect the output of cetton textiles are those which pertain to the merchandising of raw cotton to the mills, the actual production of textiles, and the merchandising of textiles. In this group are those factors of a financial nature ,-- the arranging for the cotton and other raw materials, the wage structure, and the establishment of domestic and export outlets for cotton. There are also those factors which management normally decides which, in the next year. or two, may be controlled by the various Governments, to a greater extent than before the war. These include such things as the qualities of cotton consumed, the kinds of textiles oroduced, and the disposition of such textiles. There is also the quastion of the necessary financial arrangements, including credits, involved. in again getting the production of cotton textiles underway.

During the next year or so power, and the fuel with which much of it is generated, will be so scarce as to retard the speed or recovery in the cotton textile industry. In fact, the shortage in fuel is one of the most critical with which most of the war-torn countries of Europe are confronted. Until the situation can be remedied, either by increasing the level of mine output or by imports, the use of such supplies as are available must be closely supervised. This will serve as an effective bottleneck in textile production. Bffective texw tile oroductive capacity, instead of being governed by the amount of damage to textile machinery, important though that is, may be governed, in many instances, by the supply of fuel available to the mills in question.

Another implication of the scarcity of fuel has to do with the competitive. position of cotton and rayon staple fiber. Since much more power is required to manufacture a given quantity of textiles from rayon than from cotton, it is to be expected that those agencies regulating the utilization of fuel will give preference to cotton, if it is available. This will tend to give cotton an Finitial advantage in the reconstruction period. It must be recognized as only a matter of tine, however - certainly no more than 2 or 3 years -- unt il fuel is "sufficiently abundant to no longer be a factor influencing the competitive position of cotton and rayon, other than as an item of cost.
 facilities to the point that" they alc dy obstacle to the speedy resumption of textile output. Approachëste polts have been mined. Port"facilities have been damaged "both "by offensive and defensive actioń" Rafiróds have been heavily Bombed and many locómotuves and ráilway cảrs "have been destroy There has also been considerable"damage to highways. The scarcity of fuel is also a factor in the transportation situation. $\therefore$ Of cotrse, raflroads have a high priority for coal, but the coal itself as cargo has a high priority for shipping, thereby making it hard" to fobve other"cargo "his"obstacle to the movement of cotton is expected to lessen as time passes and as "Wíking stocks of dotiton are built up'inside the importing cơntríes.

THE CURRENT COTTON SITUATION
Pricés Avertage Abaut 22.5 Cents
Per Pound in the 10 Markets
During the month ended May 18, the 10 maike price of Midding 15/16 inch cotton averaged 22.44 cents per pound. This compares with 21.86 cents rume the preceding monthy period and 20.96 cents during the corresponding period a year ago:
$\cdots$ Prices in recent weeks have held within the narrow range of approximately one-fourth of a cent ( 22.40 to 22.63 cents per pound). The stability orn cotton prices inmediately preceding and following the cessation of hostili ties in Furope indicates considerable greater optimism on the part of the cottor trade for the future of cotton than was characterized by reactions earlfer in the war period. Much of this increased confidence in the outlook rises dutiof two things.

First, the existence of the export, payment program which became operative November 15, 1944, provides the mechanism for enabling American cotton to -be freely of'fered to breign buyers at competitive world prices even though a. some what higher price level is maintained in this country. Without such action there was little chance of American cottón being nade available to foreign inills through regular cominercial channels at such a price as would enable it to compete actively with other growthis of cotton. Second the high level of demand for cotton textiles coupled with the tight textile suppl situation, not only in the United States but throughout the world, has given American textile manufacturers greater assurance than they once had that a high level of textile demand could be expected to continue after VE-Day. There is little or no doubt at the present time but what the mills will be able to sell at ceiling prices all of the textiles they are able to produce during the next year or so. This increased assurance has undoubtedly been a factor both in the strength and in the general stability of cotton pricep) during the past few weeks and months.

Of course, other factors have affected the price of American cottor) recent weeks among these are the prospects concerning the size of the new crop and speculation as to the exact nature of 1945 price supports for cotton

## Goverinment Holds 3.8 Million Bales

## Of 1944 Crop Cotton on May 12 ,

On May 19, the Commodity Credit Corporation held $3,803,872$ bales of 1944 crop cotton, : Of" this quantity, $1,525.844$ bales were in the 1944 Government loan and $2,278,028$ bales had been acquired under the 1944 cotton purchase program. In addition to the 1944 crop: Ioan cotton, there are $1,439,000$ bales of 1943 crop.cotton under Ioan as of May 19. Besides, there are also several miliion beles of cotton owned or pooled for producer account by the commodity Credit Corporation.

Through May 19 registered sales under the exnort payment program totaled 499,707 bales.

Domestic Consumption Declines in April,
May Total About 2.7 Mililion Bales for Season
Conditions continue to point toward a domestic consumption of cotton this season 1 or 2 percent less than in 1943-44. The average consumption per working day in April was 37,242 bales, the lowest since last October. In consumption continues at the same daily rate in May, June, and July as in April, the total consumption this season will total about 9.7 million bales. This compares with over 9.9 million bales in 1943-44. The present high manpower priority given textile production by the War Mannower Comission is an effot to ease, the current tight textile labor situation and thereby permit an increase in cotton textile outiput. The effects of this program may be obscured, however, by the fact.that vacations'would normally cause a slump in production in the summer months.

## Consumption Continues To Decline

Gradually in Canada
According to recent information relaased by the Cotton Institute of Canada, the consumption of cotton in Canada is continuing to decline. During the first half of the current seeson consumption totaled nearly 168,000. bales. This compares with 278,000 bales in the first half and 177,000 bales in the last half of $1943-44$. Of these quantities, American cotton comprised from 88 to 95 percent. Details on the growths of cotton consumed and in stocks, on spindle activity, and on the consumption of rayon staple fiber in the cotton industry of Canada are given in Table

Table 1.- STATISTICAI SUMMARY


Table 2. $\because=$ Data relating to cotton mill spindles in Canada, 1939 to date


Table 3.- Consumption and stocks of American cotton in Canada, by specified periods


I] 478 pounds net weight.
2) Less than $0: 5$ percent.

Compiled from records of the Cotton Institute of Canada* as reported by the
Canadian Textile Journal and Consular $\mathrm{R}_{\mathrm{e}}$ ports.

Table 4.- Commercial Fertilizer Used on Cotton, United States, 1922 to date


