

AGRICULTURAL NEWS LETTER

FEDERAL RESERVE BANK OF DALLAS

Vol. 12, No. 6

DALLAS, TEXAS

June 15, 1957

MAN-MADE FIBER PRODUCTION INCREASES

World production of rayon and other synthetic fibers continues to grow by leaps and bounds, according to a study by Frank D. Barlow, Jr., of the Foreign Agricultural Service. Output in 1955 was equivalent to 13.1 million bales of cotton, or 32 percent above the 1950-54 average of 9.9 million bales of cotton equivalent and approximately four times the 1934-38 outturn.

Prior to World War II, the growth of rayon and synthetic fiber production was relatively greatest in Germany, Italy, and Japan; in the early postwar period, the growth in other countries and the United States was relatively more rapid. However, during the past 2 or 3 years, expansion has accelerated in Japan, the Iron Curtain countries, and minor producing countries; projected growth in 1957 is also greatest in these areas.

By the end of this year, rayon and synthetic fiber capacity in Japan is expected to exceed the 1951 capacity by 195 percent, according to the study. Capacity in the Iron Curtain countries is expected to be 113 percent above the 1951 level, and that in the minor producing countries is forecast at 151 percent greater. Growth of the industry from 1951 to the end of 1957 is projected at 49 percent for Western Europe and 46 percent for the United States; world growth for the 6-year period is projected at 71 percent.

Quantitatively, the growth in production of rayon and acetate staple (cellulosic fibers) on a world basis since 1951 has been nearly three times greater than that of the noncellulosic fibers, such as nylon, Dacron, and Orlon. The relatively more rapid growth in output of rayon and acetate staple

fibers is important to future levels of cotton consumption, because rayon and acetate staple fibers are more directly competitive with cotton and are usually spun on the cotton spinning system.

Past growth, the presently available capacity, and the planned expansion of plants to produce rayon staple fiber indicate that this fiber will continue to compete strongly with cotton in the basic textile markets—regardless of comparative prices—and that greater competition can be expected among the world's rayon producers. The increased competition anticipated among world rayon producers is expected to assure the passing on of production economies in the form of lower prices, particularly in the export market.

Since World War II, consumption of rayon has increased in England, the Netherlands, Belgium, Spain, and France; however, per capita consumption in West Germany and Italy has not fully recovered to prewar levels. In the last two countries, cotton consumption has increased markedly from the pre-World War II low levels. Consumer resistance to rayon and rayon-blend fabrics occurred in Western Europe as a result of experiences with this fiber in wartime, when it was used for many purposes for which it was unsuited. Subsequently, promotional campaigns and development programs have reduced consumer resistance to rayon in many countries.

Mr. Barlow points out that there is no "positive proof" that major textile-producing countries of Western Europe have provided direct assistance or incentives to manufacturers of rayon or other synthetic fibers dur-

**PRODUCTION OF RAYON AND OTHER SYNTHETIC FIBERS,
ANNUAL 1955 AND AVERAGES 1950-54 AND 1934-38**

Principal Areas of the World

(In millions of bales of cotton equivalent)

Area	1955	Average 1950-54	Average 1934-38
Western Europe.....	5.0	3.8	1.7
Iron Curtain countries.....	1.7	1.2	.1
Japan.....	1.8	1.1	.9
All other areas.....	.8	.6
Total, excluding United States.....	9.3	6.7	2.7
United States.....	3.8	3.2	.6
World total.....	13.1	9.9	3.3

ing the past 5 or 6 years. Since the early postwar recovery period, the industry has operated on a profitable basis. Demand has increased, and — most important of all — prices of cotton, wool, and silk have been sufficiently high that no government assistance for synthetic fibers has been needed. According to Mr. Barlow, there is reason to believe that the synthetic fiber industries in many foreign countries have benefited indirectly from their governments' policies regulating the allocation of dollars for procuring raw materials and the issuance of import permits.

Throughout most of 1955 and early 1956, many foreign-grown cottons were available to Western European spinners at prices which were as much as 9 cents a pound below those of United States cotton; but after August 1956, United States cotton was sold at prices which were competitive with those for foreign growths. The competitive United States cotton export pricing policy initiated in 1956 can be expected to have a significant effect on rayon and cotton price relationships far into the future.

Some informed textile people feel that world cotton consumption will increase; however, many feel that the actual gain cotton might make against rayon would be relatively small in the short run. Increased competition between cotton and rayon in the principal rayon-producing countries would almost surely result in intensified competition in the export market among the world's rayon producers.

According to the study, many cotton textile people believe that the mill door is the crucial point of price competition between cotton and rayon. If this is true, the relative prices of cotton and rayon staple fiber may be highly significant in determining which of the fibers is to be spun and the extent to which they may be blended. Price has been an important factor in encouraging the blending of rayon staple and cotton into fabrics that are popular in the mass market.

Wildlife Practices Added to Conservation Reserve



The value of wildlife in the over-all conservation program recently has been recognized by the addition of practices to

the Conservation Reserve. According to Ed Cooper, wildlife specialist with the Texas Agricultural Extension Service, the practices will enable landowners to provide needed habitats and food crops for wildlife.

Under the Conservation Reserve Program, landowners sign agreements which run for a term of years. Rental payments are earned on an annual basis. Special payments to help cover the cost of establishing conservation practices may also be earned; three

such practices for use in Texas have been approved by the Agricultural Stabilization and Conservation branch of the United States Department of Agriculture.

According to Mr. Cooper, the cost-sharing practices are—

1. Establishment and management of cover specifically beneficial to wildlife, including establishment of field borders or wildlife travel lanes, planting of crop mixtures for dove and quail food, and establishment of food areas for deer and waterfowl.
2. Development of shallow water areas to improve habitat for ducks, geese, and other waterfowl.
3. Construction of ponds or tanks for fish production.

The specialist advises landowners who are interested in aiding wildlife in Texas to visit their county Agricultural Stabilization and Conservation offices or local county agents for details on the above practices.

Plastic Water Pipe

A new plastic water pipe that can be laid easily in a plow-turned furrow is proving useful in piping water to cattle in pastures, according to Kenneth A. Koch, assistant engineer with the Louisiana Agricultural Extension Service.

The pipe can be installed by plowing a single furrow from the nearest water supply line to the pasture, laying the pipe, and covering it with the furrow slice. The pipe will be protected, will stay relatively cool, and can be removed readily if necessary.

Mr. Koch points out that a water trough placed on each side of a fence will serve two pastures. Pipe and float valves must be protected against damage by animals.

According to dairy specialists, a cow must drink at least three times as much water as the amount of milk she gives. A cow may need 12 to 18 gallons of water a day, depending on the weather, kind of feed consumed, and amount of milk produced.

Don't Feed Nicarbazin to Layers



Rations containing nicarbazin should not be fed to laying hens as the drug reduces quality and production of eggs, says Kermit Schlamb, poultry marketing specialist with the Texas Agricultural Extension Service. Nicarbazin is a good coccidiosis preventative but should be given only to growing chicks.

The drug results in severe yolk mottling and, occasionally, yolk seepage into the egg white. If hens get nicarbazin in their rations at a level of only 0.025 percent, those normally laying brown-shelled eggs will begin producing white or near-white eggs within 72 to 96 hours. Egg size may decrease as much as 25 percent after hens eat a ration containing the drug for a few days, and continued feeding will result in a decline in egg output.

Mr. Schlamb reminds egg producers that, under the present egg market situation, they cannot afford to produce anything except top-quality eggs.

Handle with Care!

Failure to observe manufacturers' directions when handling highly toxic insecticides and miticides is risky business, warn F. M. Fuller and C. F. Garner, entomologists with the Texas Agricultural Extension Service. Certain solvents used in preparing insecticide solutions or emulsions are inflammable, and most of them are poisonous to human beings.

According to the entomologists, insecticide injury to man is most common through oral and respiratory intake or by skin absorption. Continued exposure to insecticide concentrations without regard to safety measures can result in an accumulation of chemicals in the body that eventually may cause tissue or organic injury.

Many phosphorous compounds—such as parathion, methyl parathion, EPN, TEPP, demeton, Diazinon, Phosdrin, Thimet, and Guthion—are extremely poisonous and must be handled with care at all times. These insecticides are much more poisonous to warm-blooded animals than most other chemicals used for insect control.

Messrs. Fuller and Garner caution workmen to wear gloves and freshly laundered protective clothing when handling insecticides and to change clothing immediately after completing a highly toxic job. Approved respirators should be used, and people and livestock should be protected from drifts, sprays, or dusts. In addition, a field should not be entered for 2 or 3 days after it has been treated. Insecticides should be stored away from children and irresponsible people, as well as from food and feed.

Sorghum Utilizes Stored Water



If the soil holds sufficient water at planting time, good yields of grain sorghums can be obtained even though little rainfall is received during the growing season, according to the United States Department of Agriculture. Preseason irrigation or water-conservation practices that increase moisture storage will go a long way toward assuring good yields in semiarid regions.

In cooperative experiments with the Kansas Agricultural Experiment Station at Fort Hays, P. L. Brown, soil scientist with the Agricultural Research Service, obtained grain sorghum yields averaging 37.5 bushels per acre on plots that were wet at field capacity to a depth of 7 feet at the beginning of the season but received only 5.3 inches of rainfall during growth. The sorghum developed normally by sending down roots and extracting water at increasingly deeper soil zones. Roots drained each new zone of penetration to the wilting point in 2 or 3 weeks and eventually utilized 16.4 inches of water.

Wheat Straw for Paper Products

Continued improvements in wheat-straw corrugating board (which is used in boxes and other packaging materials) point toward a promising future for straw as a raw material for paper products, according to the United States Department of Agriculture.

Recent tests show that improved tensile and bursting strengths give today's straw-board greater resistance to rough handling and hard use than strawboard tested a decade ago. In addition, scientists at the Agricultural Research Service of the Department of Agriculture have found that the tear and crush resistance of strawboard has been improved and that the product has become more uniform in quality.

Of the nearly 100 million tons of straw produced annually in the United States, an estimated 32 million tons of straw are potentially available to the pulping industry. However, only a small tonnage of straw is used for corrugated paper, since the bulkiness of straw makes it costly to collect, transport, and store.

Studies by the Northern Utilization Research Branch of the United States Department of Agriculture at Peoria, Illinois, show that wheat straw can be blended with wood pulp to help meet increasing demands for paper, pulp, and board products. Economic surveys indicate that the way may be open for a straw-pulp industry in the Great Plains.

King Cotton has reigned supreme for a long time, according to the New Mexico College of Agriculture and Mechanic Arts. Ancient records found in the Indus Valley of India show that cotton was grown and used there as early as 3,000 B.C. Cotton got its name from the medieval Arabic word "Quttan" (pronounced Kew'Tan) or "Kutn" (Cut'In), which means "a plant found in conquered lands."

The *Agricultural News Letter* is prepared in the Research Department under the direction of J. Z. ROWE, Agricultural Economist.