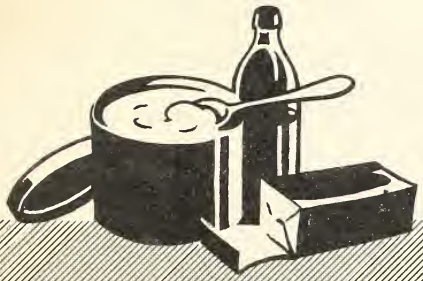
UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF AGRICULTURAL ECONOMICS

FATS AND OILS IN WORLD WAR II

Production and Price Supporting Programs



OCTOBER 1947

WAR RECORDS MONOGRAPH-6

WAR RECORDS MONOGRAPHS

The War Records Project of the United States Department of Agriculture, assigned to the Bureau of Agricultural Economics in 1943, is part of a Government-wide project, initiated by President Roosevelt and coordinated by the Bureau of the Budget, to record the history of the Government's activities in World War II. The objectives of the Departmental project have been to collect, organize, and preserve the basic records of wartime administration and to prepare histories of the major war programs.

To supplement the studies of major programs a series of monographs has been outlined to present in greater detail the wartime changes in various sectors of agriculture. These supplementary accounts are being issued as War Records Monographs either by the Bureau of Agricultural Economics or by other agencies in this Department.

Below is a list of the War Records Monographs published or in press:

No. 1 - Farm Machinery and Equipment,
by Erling Hole. 22 p. April 1946.

No. 2 - Soil Conservation During the War,
by George W. Collier. 25 p. March 1946.

No. 3 - Sugar During World War II,
by Roy A. Ballinger. 33 p. June 1946.

No. 4 - War Food Order 135, Veteran's Preference
For New Farm Machinery and Equipment,
by F. M. Johnson. 15 p. March 1947.

No. 5 - Acquisition and Use of Land for Military and
War Production Purposes, World War II,
by Alvin T. M. Lee. 115 p. August 1947.

No. 6 - Fats and Oils in World War II: Production
and Price-supporting Programs,
by Robert M. Walsh. 30 p. October 1947.

UNITED STATES DEPARTMENT OF AGRICULTURE
Bureau of Agricultural Economics

October 1947

FATS AND OILS IN WORLD WAR II: PRODUCTION AND PRICE-SUPPORTING PROGRAMS

by

Robert M. Walsh

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PREFACE

This report on domestic production is the first chapter of what was originally intended to be a larger work. Only incidental references are made here to such topics as price control, consumer subsidies, domestic allocations and rationing, import and export allocations and controls, Government procurement, and Government efforts to stimulate production abroad. Adequate treatment of these topics must await further study.

In this report more emphasis has been placed on the early phases of the production and price-supporting programs than on the later phases. Decisions made early in the war (in 1941 and 1942) had much to do with later developments.

Introduction

Initial efforts to spur production of fats and oils in the United States following outbreak of war in Europe in 1939 were lukewarm and hesitant. Production adjustment programs during the uneasy thirties had been oriented in the direction of restricting acreage of principal crops, first through contractual agreements between the Government and farmers, and later by means of "conservation" programs and payments. Soybeans and cotton, for example, were defined as soil-depleting crops, and participating farmers could expand acreages of these crops only within their total farm allotments of soil-depleting acres if they wished to receive conservation payments.

The movement of prices during the first year of war in Europe did not encourage expansion in oil-bearing crops. Prices of fats and oils had made a strong recovery in 1935-37 from the depression lows, but the upward movement, resulting largely from the world scarcity of lard following severe droughts in the United States, was short-lived. Prices plunged downward in 1938 and 1939, and for some commodities, such as lard, the downward trend persisted through the greater part of 1940. The abnormally low level of prices in 1939 and 1940 resulted from two major factors in world markets - the self-imposed restrictions on imports by Germany and the rapid upward trend in world production of low-cost vegetable oils and whale oil.

Little effort was made in 1940 to increase production of fats and oils. Farmers were urged to reduce the acreage of peanuts, and the two-price system designed to make expansion in peanut acreage unattractive was continued. A tight clamp was maintained on soybean and flaxseed acreage, and measures were being explored to bring about further reductions in cotton. Hog prices were depressed, but in the early fall the Secretary of Agriculture strongly urged farmers to increase pork production with the assurance that rising demand would bring an increase in hog prices. 1/

First Steps — 1941

A sharp change in administrative climate occurred in the early spring of 1941, following passage by Congress of the Lend-Lease Act. The United Kingdom, which had restricted its purchases of lard in 1940 to conserve foreign exchange, again became an important factor in the lard market of the United States. Other goods began to move to Europe, including military equipment, and prices generally began to rise. The rise in prices was accompanied by an increase in speculative sentiment. Goods were bought in increasing quantities for storage. Mounting losses of ships in the Atlantic, the Mediterranean, and the Indian Ocean caused the British to withdraw some shipping from the Pacific, with the result that imports of coconut oil, copra, and palm oil into the United States fell off for a time. The fear of German penetration into Africa and possibly India and South America gave rise to concern over the future trend of imports of fats and oils and oil-bearing materials.

1/ U. S. Dept. of Agr. Press Release 1289-41, Sept. 26, 1940.

It was under these conditions that a series of administrative actions affecting the production of domestic oils and fats were taken in the spring of 1941.

The first major action was to stimulate livestock production through announcement of support prices for hogs, dairy products, eggs, and poultry, and the maintenance of feed prices at moderate levels by the sale of CCC-owned corn at the loan rate plus carrying charges. 2/ Pork and lard were among the commodities most immediately in demand by the United Kingdom for shipment under lend-lease. The support price of hogs was established at $9 per 100 pounds liveweight, Chicago basis, at a time when market prices, although rising, were considerably under that level. A year earlier the price of butcher hogs at Chicago had varied between $5 and $6 per 100 pounds. The action taken, although not directed primarily at increased fat production, contributed materially to the general increase in output of fats in succeeding years. The fall pig crop in 1941 showed a gain of 5 million head (17 percent) over the 1940 fall pig crop. The spring pig crop of 1942 was up 12 million head (24 percent) over the spring crop of 1941. Rising prices of hogs resulting from increased demand undoubtedly was the major influence in stimulating increased hog production from 1941 through 1943, but early encouragement given by the Secretary of Agriculture was an important contributing element.

Cotton was still in great surplus, and another action initiated by the Agricultural Adjustment Administration was a move to cut cotton acreage by permitting, without penalty, increased plantings of peanuts for oil within the cotton-acreage allotments. 3/

An Interbureau Coordinating Committee on Fats and Oils was authorized by the Secretary of Agriculture on April 30, 1941. 4/ F. F. Elliott of the Bureau of Agricultural Economics was named chairman. A statement of the fats-and-oils problem was drafted with specific recommendations for departmental action. Preliminary findings were presented to the Secretary and bureau chiefs in late May and early June. A formal report, signed by representatives of Bureau of Plant Industry, Office of Foreign Agricultural Relations, Bureau of Agricultural Chemistry and Engineering, Office of Agricultural Defense Relations, Agricultural Adjustment Administration, Commodity Credit Corporation, Surplus Marketing Administration, Office of the Secretary, and Bureau of Agricultural Economics, was submitted to the Secretary on June 7. 5/ The following quotations from that report indicate the general line of reasoning:

"Reduction in supplies in the face of rising demand is bound to have a marked effect in raising prices. In the summer of 1939, prices of most fats and oils were at the lowest levels since early 1934. World production of vegetable and marine oils in 1939 probably was at or near an all-time record level, and

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2/ U. S. Dept. of Agr. Press Release 1992-41, Apr. 3, 1941.
3/ U. S. Dept. of Agr, Press Release 1993-41, Apr. 4, 1941.
4/ Memorandum for H. R. Tolley, Chief, Bureau of Agricultural Economics, from Claude R. Wickard, Secretary.
5/ Report of Interbureau Coordinating Committee on Fats and Oils, 24 pp. (typewritten).

foreign demand for American lard was weak. Following the outbreak of war in September 1939, prices of fats and oils in the United States advanced approximately 20 percent. Most of this gain was lost during the first eight months of 1940, when the world demand for fats was greatly weakened by the closing of important European markets.

"Prices again advanced from August 1940 to February 1941, when they restored to about the same level as in the early part of 1940. Improvement in domestic demand, decreased output of lard and greases, and rising shipping costs for imported oilseeds and oils were mainly responsible for this advance. A further gain of 14 percent in the general price level for fats and oils occurred in March and April, with prices rising still more in May. Government purchases of lard for shipment to the United Kingdom apparently were responsible in part for the recent advances. But the dominating factor in recent weeks appears to have been the actual and prospective reductions in imports of oilseeds and oils resulting from the growing scarcity of shipping space.

"In view of the growing shortage of ocean shipping, we are faced in each of the years 1941 and 1942 with the possibility of a total deficiency of from 470 to 525 million pounds of total fats and oils in the United States. This is on the assumption that imports are cut 33 percent in 1941 and 50 percent in 1942 and that no attempt is made to expand domestic production.

"Apart from the shipping shortage, another factor that should be given consideration is the possibility of a serious drought developing."

The following recommendations were made by the committee.

"1. That the Department sponsor a program calling for an expansion of soybean production for seed (i.e. for beans) in 1941. The maximum volume which can be handled by available crushing capacity, plus our requirements for feed and seed, would amount to about 130 million bushels. At five-year average yields, 7.3 million acres would be required to produce this quantity. This would be an increase of about 2.4 million acres above that harvested for seed in 1940. An expansion of this magnitude probably cannot be obtained this late in the planting season. Current advice from producing areas indicates that inauguration of an expansion program now probably would result in an increase of not more than 1 million acres above the acreage harvested for seed in 1940.

"To obtain such an expansion in soybean acreage in 1941 probably would necessitate a relaxation of present A.A.A. restrictions on soybean acreage. This relaxation could take the form of permitting an increase in the acreage harvested for beans beyond present allotments without penalty.

"Prices of soybeans, soybean oil and meal are now much higher than during the harvesting season last fall and present indications are that prices next fall also will be materially higher than in the fall of 1940. The farm price on April 15, 1941 averaged $1.07 per bushel as compared with season

average prices of 76¢ in 1940; 81¢ in 1939; 68¢ in 1938 and 84¢ in 1937. The acreage harvested for beans has increased from 2,549,000 in 1937 to 4,961,000 in 1940. If A.A.A. restrictions are relaxed, current and prospective prices, therefore, are favorable for a considerable expansion in soybean acreage harvested for beans in 1941. But the relaxation of A.A.A. restrictions should be followed by a definite program to encourage farmers to expand their acreage harvested for beans.

"2. That the Department inaugurate a program for expanding the domestic production of castor beans in order to obtain an adequate reserve of seed of adapted varieties to serve as contingent insurance in the event importations from foreign sources will be impossible because of the international situation.

"3. That after a careful analysis around the end of this year, it is found the shipping situation is still such that it is not feasible to import flaxseed from Argentina and castor beans from Brazil and India, the Department encourage an expansion of flaxseed production both in the winter and spring producing areas in an amount sufficient to take care of our expected needs.

"4. Steps should be taken to secure cooperation of industry leaders with a view to decreasing the use of 'soap' oils in the manufacture of edible products and also increasing the use of resin in the manufacture of soap."

A castor-bean seed program, which had been extensively discussed within the interbureau committee, was publicly announced June 10. 6/ The program was limited to 11 counties in Texas. Cooperating farmers were offered 3½¢ a pound for cleaned seed and were exempted from deductions from their 1941 Agricultural Conservation Program payments for excess soil-depleting acreage to the extent of 5 acres or 5 percent of the cropland, whichever was greater, wherever the excess was due to planting castor beans. The program was designed to furnish the country with a supply of adapted seed to be used in the event that "defense developments" made it expedient to increase domestic castor-oil production in 1942.

Restrictions on soybean acreage were partially relaxed June 13, and encouragement was given to growers to expand the acreage of soybeans harvested for beans. The language of the public announcement indicates the reluctance of the Department of Agriculture to depart from acreage limitation programs developed during the 1930's. 7/

"Department officials pointed out that the flow of supplies from some of the normal sources of fats and oils have been interrupted due to war conditions. Under these circumstances, they said, some increase in domestic production of fats and oils in 1941 may be necessary to provide a normal volume for consumption without a material reduction in stocks.

6/ U. S. Dept. of Agr. Press Release 2518-41, June 10, 1941.
7/ U. S. Dept. of Agr. Press Release 2534-41, June 13, 1941.

"The situation is not expected to be serious in 1941-42 but Department officials indicated that in view of national defense needs it was deemed advisable to take immediate steps to increase the production of soybeans this year.

"Although a relatively strong market is expected to be maintained as a result of increasing domestic demand, the Department will utilize its available resources to provide price supports to AAA cooperators for soybeans. Officials indicate that the price will be supported at a level of approximately $1 a bushel for soybeans. Details of these measures to protect growers in the event of any unforeseen price decline will be announced later."

At the time of this announcement the average price received by farmers for soybeans was about $1.20 per bushel. For the 1941-42 marketing year the price averaged $1.55 per bushel. The acreage of soybeans harvested for beans increased from 4.8 million acres in 1940 to 5.9 million acres in 1941, despite the fact that the total planted acreage declined. Acreage harvested for beans increased from 41 percent of total soybean acreage in 1940 to 52 percent of the total in 1941. This increase was made principally at the expense of soybeans cut for hay, although some reduction occurred in the acreage of soybeans grazed and plowed under.

Programs for 1942

The programs for oilseeds put into operation during 1941 had little real influence in changing the patterns of production of preceding years. Because of poor yields, soybean production had declined from 90 million bushels in 1939 to 77 million bushels in 1940. Production increased to 106 million bushels in 1941 which at that time was a new record high. On the other hand, peanut production declined sharply in 1941, partly because of reduced acreage but chiefly because of poor growing conditions. No special inducements were offered flaxseed growers, yet with the price of flaxseed more than twice the price of wheat per bushel in the 1940 marketing season, flaxseed acreage was expanded in 1941. Aided by exceptionally good growing conditions in the main flaxseed belt, and the relatively fertile land devoted to flaxseed, the average yield of 9.8 bushels per acre was the highest since 1915. Flaxseed production, totaling 32 million bushels, was the largest since 1902. Cotton acreage and production of cotton and cottonseed declined in 1941. Output of castor beans in the United States is so small that official crop statistics are not available for that crop, but records of the Commodity Credit Corporation show Government purchases of 86,879 pounds of castor beans, in the hull, from the 1941 crop, under the purchase guarantee offered in the seed program. The average price paid was 3½¢ per pound, cleaned basis. 8/

8/ From records of Commodity Credit Corporation. These records also show purchases of 2,022,791 pounds of castor beans at an average price of 3.7 cents per pound, in the hull, from the 1942 crop, and purchases of 2,448,631 pounds at an average price of 5.6 cents per pound, in the hull from the 1943 crop. Payments for seed totaled $3,040 (1941 crop), $74,511 (1942 crop) and $132,342 (1943 crop). The castor-bean seed program was abandoned in 1944 when it became apparent that imports of castor beans from Brazil would not be cut off by submarine activity or by lack of shipping.

The outcome of 1941 crops was not fully known at the time an Interbureau Production Goals Committee was established in midsummer, with the creation of a number of commodity subcommittees. 9/ In general the composition of the production goals subcommittees was much the same as that for the interbureau coordinating subcommittees.

In other quarters, limited preparations were being made for war, but the official policy of the Government was still one of neutrality. Many people assumed that the United States would sooner or later be drawn into war; most eyes were turned toward the European theater of conflict rather than the Asiatic. Imports of fats and oils had not suffered the blow that had been anticipated in the spring of 1941, when British shipping was being withdrawn from the Pacific. Imports of fats, which had declined in the early part of the year, mounted sharply in the summer of 1941. Nevertheless the Production Goals Committee drew up a list of proposals which called for considerable expansion in soybean acreage, and in the acreage of peanuts grown for oil.

In the statements of suggested goals for 1942, released by the Department of Agriculture in September 1941, 10/ a goal of 7 million acres of soybeans to be harvested for beans in 1942 was proposed, an increase of more than 1 million acres over the acreage harvested in 1941. It was also proposed that the acreage allotment for peanuts for direct edible use (peanut butter, peanut candy, and salted and roasted peanuts) be maintained at the 1941 level of 1.6 million harvested acres, but that an additional 1.9 million acres of peanuts be grown for oil. The proposed total acreage of peanuts for harvest of 3.5 million was in excess of the 1941 outturn by about 1.6 million acres. The suggestion for flaxseed was that acreage be maintained at the same level as in 1941. It was thought that there was less likelihood of imports of drying oils (originating chiefly in South America) being curtailed than of food and soap oils, and that in any case the country could, if necessary, limit its painting activities for a few years without serious consequences.

Although cottonseed is one of the leading sources of vegetable oil in the United States, the oil crops subcommittee made no recommendation on that crop. The cotton subcommittee, similarly, had little to say on cottonseed. Production policy on cottonseed was subordinated to the policy with regard to cotton lint. Cotton had been in surplus supply for some years, and continued so throughout the war. The objective in 1941 was to reduce cotton acreage further,

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9/ Secretary Wickard requested the Chief of the Bureau of Agricultural Economics to form a Department-wide Interbureau Committee to develop production goals for 1942 for all major or critical agricultural commodities. This committee was to establish subcommittees on a commodity basis. The Secretary proposed holding a meeting of the Agricultural Program Board and the Interbureau Committee the last week in August to review the recommendations made. Memorandum for H. R. Tolley, Chief, Bureau of Agricultural Economics, from Claude R. Wickard, Secretary, July 17, 1941.

10/ U. S. Dept. of Agr. Press Release 524-42, Sept. 8, 1941; and Suggested State Distribution of Goals or Expected Production for 1942, U. S. Dept. of Agr., Sept. 15, 1941, 49 pp. (mimeographed).

and this was exemplified in the suggestion that the goal for 1942 be placed at 22,050,000 acres in cultivation July 1, compared with an indicated 23,359,000 acres in 1941.

Lard, another of the major domestic fats, also was outside the scope of the oil crops goals committee. Production policy in this case was dominated by the policy on hogs and pork, the direction of which had been determined in early April 1941 when a forward price support was offered on sales of hogs, and when livestock producers were assured of relatively low prices for feed.

During the fall of 1941 representatives of the Agricultural Adjustment Administration were active in field meetings with State and County committees in establishing county and farm goals, and in explaining the nature of and reasons for the national production program. Preparations were being made for a survey of acreage intentions in conjunction with a voluntary sign-up campaign. The news of the Japanese attack on Pearl Harbor, Sunday, December 7, caused uncertainty as to the adequacy of the goals. This uncertainty continued for more than a month. The oil crops subcommittee was periodically in contact, through its chairman, with the Secretary of Agriculture. A statement prepared by the subcommittee for the Secretary, dated November 28, pointed to the probable rapid depletion of stocks of fats and oils in the event that the United States "were to get into a shooting war," and suggested that so long as imports continued fairly large serious consideration be given to the question of building stockpiles of certain imported fats and oils. In another statement, dated December 11, the deficiency in supplies of domestic fats and oils arising from the loss of imports of fats from the Pacific was estimated at about a billion pounds. Further increases in production goals were suggested to overcome this handicap.

Meanwhile, on December 8, Secretary Wickard called on Bureau and Agency heads within the Department of Agriculture "to reconsider 1942 production goals with a view to increasing them where necessary." 11/

By January 9, 1942 the oil crops committee had a comprehensive report ready for review. 12/ Six principal recommendations were made:

1. That the acreage goal for soybeans be increased from 7 million to 9 million acres.

2. That the acreage goal for flaxseed be increased from 3,367,000 acres to 4,000,000 acres.

3. That an acreage goal for castor beans for oil be established at 50,000 acres, and that the goal for castor beans for seed be increased from 1,000 to 15,000 acres.

4. That the production of lard, tallow, and greases be stepped up by 400 million to 500 million pounds by changing the relation of the prices of these products to meat prices.

11/ U. S. Dept. of Agr. Press Release 1240-42, Dec. 8, 1941.
12/ Production Goals 1942 - Oilcrops (16 pp. dittoed). U. S. Dept. of Agr.

5. That the production of corn oil and miscellaneous byproduct pit and seed oils be increased, if possible. (The chief obstacle was lack of installed equipment to handle waste products.)

6. That no change be made in the peanut goal of 3.5 million acres, but that growers be urged to overplant the goal.

The committee also recommended that price-supporting measures be taken for soybeans, peanuts, castor beans, and possibly flaxseed, and recommended changes in the price ceilings for linseed oil, lard, tallow, and greases, and "probably for peanut, soybean, cottonseed, and castor oils."

The Secretary of Agriculture, in favor of all-out agricultural production, was sympathetic to the needs for increased production of fats and oils. The recommendation for soybean acreage was accepted by the Department's Program Board; the flaxseed goal was raised another half million acres; and at the urgent pleading of the administrator of the peanut diversion program, the peanut goal was advanced to 5 million acres. The decision was made to offer price supports for soybeans, flaxseed, and peanuts, and to take steps to increase the production of lard, tallow, and greases in packing plants. Recommendations concerning castor beans and byproduct oils were left for further consideration, as some technical matters remained to be resolved. No effective action was taken to increase production of byproduct oils, as the cost in terms of critical metals and other materials was considered excessive in terms of the quantity of additional oil that might be recovered.

On January 16, a revised farm production program was announced. 13/ The goal for soybeans was raised to 9 million acres, flaxseed to 4.5 million acres, and peanuts to 5 million acres. It was stated that efforts would be made to step up the production of lard, tallow, and grease in packing plants. Price and loan supports were announced as follows:

1942 crop of Soybeans for Oil
85 percent of the comparable price as of the beginning of the marketing year (October 1), but in no event less than $1.60 per bushel, farm basis for U. S. No. 2 Yellow soybeans of recognized varieties of high oil content.

1942 crop of Flaxseed for Oil
85 percent of the parity price as of the beginning of the marketing year (June 1), but in no event less than $2.10 per bushel, farm basis.

1942 crop of Peanuts for Oil
85 percent of the comparable price as of the beginning of the marketing year (August 1), but in no event less than $82 per ton for U. S. No. 1 White Spanish type peanuts, $78 per ton for U. S. No. 1 Runner type peanuts, and $70 per ton for U. S. Class A. Virginia type peanuts, delivered to an approved local receiving agency.

13/ U. S. Dept. of Agr. Press Release 1522-42, Jan. 16, 1942

A two-price system was in operation for peanuts. Quota peanuts (peanuts grown on farm-allotted acres) were sold at the edible-use price. Excess peanuts, or peanuts grown on acreage outside the farm allotments, were sold through grower cooperatives (the "designated agencies"), but at the oil-mill price. Growers who sold excess peanuts directly for edible use were subject to a penalty of 3 cents for each pound sold. The average price received by farmers for all peanuts in the 1941 marketing season was $93.20 per ton. Prices received for peanuts for edible use averaged approximately $96.80 per ton, and for peanuts for oil approximately $78.40 per ton. The minimum price guarantee for the 1942 crop of peanuts for oil was nearly the same as the actual price received in the 1941 season, and offered little additional incentive to growers beyond the price rise that had already occurred. But the offer was important in that it provided a floor below which prices were not to be permitted to fall. The two-price system was designed originally to discourage plantings of peanuts in excess of the farm-acreage allotments, in an endeavor to maintain the price of peanuts at a high average level. It was continued in effect through the 1942 season, but was abandoned for a single price to growers for all peanuts (with allowance for type and grade differentials) beginning with the 1943 marketing year.

In another announcement, a goal was set calling for an increase of 300 million pounds of lard in 1942 by raising the yield of lard from hogs slaughtered and changing the relationship between lard and meat prices. 14/

A castor bean seed program was announced in February. 15/ It was stated that Commodity Credit Corporation would purchase 1942-crop castor beans to increase the supply of adapted varieties of seed for commercial production in 1943, or later, if such production proved necessary. A basic price of 4 cents per pound was offered for mature, dry, castor beans in the hull, on the basis of 70 percent shelling weight. The seed was to be planted, cultivated, and harvested under the supervision of the Agricultural Adjustment Administration and the Bureau of Plant Industry.

The Special Interbureau Committee on Fats and Oils presented a formal report to the Secretary of Agriculture February 28, 1942, which recommended strenuous efforts to attain the production goals (even suggesting an increase in cotton beyond the 25-million acre goal); explored the means of obtaining additional animal-fat production; surveyed the prospects for action in the fields of foreign trade, shipping, and domestic utilization; and indicated the type of governmental organization required to handle all phases of the fats-and-oils program.

As one outgrowth of this report a letter to the War Production Board was drafted requesting that a rationing program for food fats and oils be instituted at once; that the manufacture and sale of paints, varnishes, enamels, and lacquers be prohibited for all but essential uses; that further conservation be obtained by restricting use of industrial fats, oils, and glycerin; and that

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14/ Food For Freedom Program, Background Information. Office of Information, U. S. Dept. of Agr., Feb. 1, 1942.

15/ U. S. Dept. of Agr. Press Release 1783-42 Feb. 16, 1942. A brief summary of research on castor beans during the war conducted by the Bureau of Plant Industry, Soils, and Agricultural Engineering is contained in the Appendix.

the supply of fats and oils for use in soap be limited to the quantity used in 1941, with high glycerin-yielding oils such as coconut and babassu being allocated exclusively to soap (glycerin being obtained as a byproduct). The War Production Board, further, was requested to delegate authority to the Secretary of Agriculture to issue regulations that would provide for maximum recovery of animal fats in slaughtering establishments. And it was recommended that a program for conservation of household fats and greases be inaugurated, with special emphasis on large urban areas. 16/

Household salvage of fats and greases had been undertaken experimentally by the Chicago branch of the Office of Civilian Defense. Waste household fats, in tin containers, were turned in at retail butcher shops for a price of 4 to 5 cents per pound. The butcher in turn sold the waste fats to a local renderer. A national salvage program was formally begun by the War Production Board on July 13, 1942. The Office of Price Administration established ceiling prices for salvaged fats and greases and, beginning December 13, 1943, permitted retail butchers to give ration stamps in addition to the price payment to any individual who turned in waste fats. Army and Navy installations also were brought into the collection scheme. A private advertising council, sponsored mainly by soap manufacturers, was formed to push the program. Collections of waste fats and greases from civilian and military sources was estimated at 42 million pounds in 1942, 161 million pounds in 1943, 220 million pounds in 1944, 177 million pounds in 1945, and 129 million pounds in 1946. 17/

The plan for obtaining increased animal-fat production in packing plants did not fare so well. The Office of Price Administration, approached informally by representatives of the Department of Agriculture on the matter of increasing price ceilings for animal fats in relation to the ceilings on meats, stated that ceiling-price control was not designed for the purpose of allocating resources. A new tack was pursued, calling for the issuance of a meat-trimming order, which would require packers to conform to certain trimming standards. In a conference with the Secretary of Agriculture, the Chairman of the War Production Board invited the Secretary to assume the leadership in formulating a comprehensive program for fats and oils. Accordingly, the Secretary on March 26, 1942 created an Interdepartmental Committee on Fats and Oils, 18/ with representation of all interested Departments and Agencies. The meat-trimming order, however, held fire until additional authority was granted. This authority came in the establishment on June 5 of a Food Requirements Committee within the War Production Board under the chairmanship of the Secretary of Agriculture. 19/ This committee was authorized to determine civilian, military, and foreign food requirements and to step up or limit domestic production of foods and agricultural materials from which foods are derived.

16/ Letter to Donald M. Nelson, Chairman, War Production Board, from Claude R. Wickard, Secretary of Agriculture, Mar. 16, 1942. Copy sent to Leon Henderson, OPA.

17/ The American Fat Salvage Committee, Inc., 247 Park Avenue, N. Y., in a release dated Mar. 3, 1947.

18/ Shortly afterward termed the Interdepartmental Policy Advisory Committee on Fats and Oils.

19/ Press Release WPB-1295, June 5, 1942; includes memorandum dated June 4 to Department and Agency heads defining organization and procedure with respect to foods and related products.

A report to the Secretary of Agriculture on conservation of animal fats was made early in July. 20/ It was estimated that annual production of animal fats would be increased by about 300 million pounds (200 million pounds of hog fat and 100 million pounds of beef fat) by the meat-trimming order proposed, but several difficulties were pointed out. Upward revision in price ceilings on meat would be necessary if the burden of the program were not to fall on processors and farmers. Such revision appeared doubtful. Moreover, the existing ceiling structure on beef and pork was stated to be far from satisfactory, and it was considered possible that the issuance of a fat conservation order would make a bad situation worse. A further difficulty expressed was that gross savings of fats in packing plants would be much larger than the net increase in production, owing to the reduction in the quantity of meat scraps that would be available to renderers. It was estimated that meat-packing establishments might increase production of beef fats by 300 million pounds in conforming to the proposed trimming order but that renderers' production might decline by 200 million pounds.

Representatives of the packing industry were called in and asked to express their views on the proposed specifications. They requested time to consider the proposals and to run cutting tests. The results of the tests were disappointing. Not only was it difficult to recruit and maintain skilled cutters in the face of a rapid labor turn-over, but the cutting itself, even by the most skilled, was likely to expose the meat and thus lead to rapid spoilage. An additional factor mentioned was the difficulty of obtaining new rendering equipment in the face of the acute shortage of steel that existed. Renderers, whose profits likewise were endangered, meantime brought strong pressure to bear on the Department of Agriculture. The project ultimately was dropped. A few attempts were made to revive it in later years, but these attempts were not successful.

Price-supporting measures for 1942 crop oilseeds took the form mainly of contracts between Commodity Credit Corporation and crushers and oil refiners wherein the Corporation agreed to pay, in the event of distress selling, specified minimum prices for oilseed products, usually fractionally lower than ceiling prices or prevailing market prices, provided processors paid not less than the Government support prices for oilseeds. The minimum price to be paid by processors for cottonseed was $50 per ton for basis-grade seed at the gin in all States except Texas (but not Bowie County), Oklahoma, and New Mexico where the minimum price was $49 per ton. These prices were calculated to be equivalent to an average price to growers of approximately $47.50 per ton for a crop of average quality. Minimum prices to be paid for flaxseed were established at $2.40 per bushel for No. 1 flaxseed, Minneapolis basis, equivalent to about $2.20 per bushel at the farm level. Producers delivering excess peanuts in bulk to the designated agencies received the market value of the peanuts for oil on day of delivery, minus the handling costs, or the prices announced January 16, whichever was higher. In addition to the agreement of

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20/ Report of the Committee on Conservation of Animal Fats to the Secretary of Agriculture, July 11, 1942 (7 pp., typewritten, with 2-page addendum on suggested specifications for conservation order on animal fats.)

soybean processors to purchase No. 1 and No. 2 Yellow soybeans of not more than 14 percent moisture content at not less than $1.60 per bushel, the Commodity Credit Corporation offered a loan, storage, and purchase program at the same rate plus an allowance for farm storage of soybeans. Because of the inadequacy of crushing facilities in the main soybean-producing area, some soybeans were acquired by Commodity Credit Corporation and shipped to the South and Southwest for crushing with Commodity Credit Corporation absorbing the shipping costs.

Outstanding success attended the 1942 oil crops production program. How much of the success was due to rising prices, how much to Government price support, and how much to the goals program conducted by a variety of publicity devices and by direct personal contact, is a matter of conjecture. Rising prices undoubtedly played a considerable part. In the early spring of 1942 the average price received by growers for flaxseed was about two and one-third times the average price received for wheat compared with a traditional "break-even" ratio of 2 to 1. The average price for soybeans was two and one-fourth times the price of corn compared with a prewar ratio of about 1-3/4 to 1. On the other hand, the average price of peanuts per pound was only one-third the average price of cotton, slightly less than prewar and below the calculated "break-even" ratio of approximately 3/8 to 1. Enthusiasm for peanuts represented perhaps a desire to find an alternative to cotton, still in surplus supply, as well as the patriotic response of growers to the strong governmental appeal.

Production of vegetable oil from the 1942 crop of oilseeds amounted to 3.7 billion pounds compared with 2.8 billion pounds the year before, an increase of 900 million pounds. Output would have been higher if the demand for peanuts for edible use had not exceeded all expectations. It was thought that most of the increase in peanut production would go to enlarge the supply of oil. Actually, the growers' cooperatives handling the marketing of peanuts sold a considerable quantity of excess peanuts to the edible trade, later reimbursing growers by bonus payments for the difference between the oil-mill price and edible-trade price. Production of peanut oil, instead of reaching the 500 million to 600 million pounds anticipated, was only about 130 million pounds; not much more than prewar output. The quantity of farmers' stock peanuts cleaned and shelled jumped from 910 million pounds in the 1941-42 season to 1,359 million pounds in 1942-43, an increase of 49 percent.

Success also attended the animal-fat enterprise. Despite a moderate reduction in output of tallow and greases, total animal-fat production (excluding butter) increased from 4.6 billion pounds in the 1941-42 season to 4.8 billion pounds in the 1942-43 season, with a substantial gain occurring in lard. Butter production was slightly lower in 1942-43 than the year before; thereafter the manufacture of butter, the residual claimant on the milk supply, was to decline severely.

Programs for Succeeding War Years, 1943-45

In midsummer 1942, H. R. Tolley in transmitting a report on production possibilities for 1943 to the Secretary of Agriculture made the following observations: 21/

"This inventory indicates that it will be extremely difficult to maintain the high levels of production being recorded in 1942. Many commodities are likely to set new production records this year.....

"In planning for 1943 production we cannot count on as high yields as we are getting in 1942. Assuming normal yields, it seems feasible to increase our output only about 1 or 2 percent above 1942. Fortunately, however, there is still wide flexibility for increasing individual products. For example, our estimates indicate that it is feasible to plant 1 million more acres of soybeans, an increase of 10 percent; 1 million more acres of peanuts, an increase of 20 percent; and 150,000 more acres of flax, an increase of 3 percent.....

"In the spring of 1943 we can have 800,000 more sows farrowed than in 1942 ..... In 1943, we may be milking over 500,000 more cows, and be collecting 250 million dozen more eggs. The record numbers of livestock, especially hogs, will be fed from the 1942 bumper crops of feed and will be an important factor in holding production at a high level.

"However, these feasible increases in production cannot be realized in actual output unless weather is again fairly favorable, and unless aggressive action is taken to remove several serious obstacles to agricultural operations. Supplies of skilled agricultural workers are rapidly diminishing. Nitrates are short. Transportation on farms and ranches is becoming inadequate. Processing facilities and materials are limited in many areas. Critical needs are arising for proper mechanical equipment such as peanut pickers and combines in areas increasing peanuts and soybeans ....."

These words of cautious optimism, as it turned out, were on the conservative side, particularly with respect to livestock production. Production of agricultural products for sale and for consumption in farm homes was 10 percent greater in 1942 than in 1941, and 17 percent greater than in 1939. Production in 1943 was 3 percent greater than in 1942 - production of crops showed a 6 percent decrease but production of livestock and livestock products was 9 percent greater than in 1942. The relatively poor showing for crops in 1943 resulted chiefly from less favorable weather conditions. Further expansion in output of both crops and livestock products was to be achieved in 1944.

21/ Memorandum to Claude R. Wickard, Secretary of Agriculture from H. R. Tolley, Chief, Bureau of Agricultural Economics, Aug. 15, 1942. Contained in Agriculture's Wartime Production Capacity, Part I, U. S. Department of Agriculture in cooperation with State Agricultural Experiment Stations and Extension Services (for administrative use, 80 pp. mimeographed), Washington, D. C., Aug. 1942.

Tentative production plans for 1943, transmitted to the State War Boards by the Secretary of Agriculture on November 14, 1942, called for the same acreage goals for oil crops as in 1942. 22/ This would have meant a reduction in soybeans from the 10 million acres actually harvested for beans in 1942 to 9 million acres in 1943, and a moderate reduction in flaxseed from 4.7 million acres planted in 1942 to 4.5 million acres in 1943. It was pointed out that an order of the War Production Board restricted the manufacturers' use of fats and oils, and that this restriction would save approximately 500 million pounds of fats and oils in the 1942-43 fiscal year. Peanuts would be expanded, however, from the 3.4 million acres picked and threshed in 1942 to 5 million acres in 1943. Enthusiasm for peanuts as an oil crop remained high.

As a result of conferences held with the State people and a sharp decline in the prospective supply of butter for 1943, the tentative goals were revised upward in late November: Soybeans to 10.5 million acres, flaxseed to 5 million acres, and peanuts to 5.5 million acres. 23/ These were the goals publicly announced. 24/ The cotton goal was set at 22.5 million acres, a reduction of 10 percent from the goal for the previous year and 3 percent under the final acreage estimate for cotton in cultivation July 1, 1942. An increase of at least 15 percent was requested for the 1943 pig crop. Soybean prices were to be supported at $1.60 to $1.75 per bushel, depending on oil content, for yellow or green soybeans of high oil content. Flaxseed was to be supported at a price of not less than $2.70 per bushel, basis No. 1 flaxseed at Minneapolis. A single-price program was announced for peanuts on the basis of an average return to growers of 85 percent of the parity price at the beginning of the 1943 marketing season.

Under terms of the Agricultural Adjustment Act of 1938, as amended, the price of cotton — a "basic commodity" — was to be supported at 90 percent of the parity price for cotton on the fifteenth of the month preceding the beginning of the marketing year, provided producers had not disapproved marketing quotas in any referendum that might be held. No statement was made with regard to the price of cottonseed.

22/ Agricultural Production for 1943. Suggested State and Regional Distribution of Tentative Goals, U. S. Department of Agriculture, Preliminary: For Administrative Use, Nov. 1942. 46 pp. (mimeographed).

23/ On November 27 the Special Interdepartmental Committee on Fats and Oils of the Food Requirements Committee recommended, among other things, that consideration be given to increasing the production goals of edible oilseeds. Proposed Fats and Oils Program to Meet the Impact of the Butter Situation, FRC Docket No. 1 (Sup. 4). In a letter to Donald M. Nelson, Chairman, War Production Board, transmitting these Recommendations and the policy decisions made, Samuel B. Bledsoe, Vice Chairman, Food Requirements Committee, stated: "The proposal (of the subcommittee) in item 8 has been implemented by increasing the acreage goal of soybeans from 9 to 10½ million acres, of peanuts from 5 to 5½ million acres and of flaxseed from 4½ to 5 million acres." Fats and Oils: FRC Recommendation No. 56, Dec. 1, 1942.

24/ U. S. Dept. of Agr. Press Release 1029-43, Nov. 30, 1942.

The support price for hogs, it was stated, would continue through September 30, 1944 at the fairly high level of $13.25 per 100 pounds, average for Good to Choice butcher hogs weighing 240 to 270 pounds, at Chicago.

The feeling was growing that action taken with regard to oilseeds was inadequate. Production of butter was declining at an alarming rate. Lend-lease needs for fats were mounting. Moreover, the feed situation was changing. As a result of increasing production and high prices for livestock and livestock products, the demand for feed was climbing daily. Acute shortages began to be experienced, particularly in high-protein supplements.

A new program for oilseeds was announced in late January 1943. 25/ The goal for soybeans was increased to 12 million acres and the goal for flaxseed to 5½ million acres. The goal for peanuts remained unchanged at 5½ million acres. In addition to the price supports previously announced, acreage-incentive payments were offered "to compensate farmers for added costs in achieving the increased goals." For soybean producers, payment of $15 per acre was to be made on each acre over 90 percent of the farm goal up to 110 percent of the farm goal. Similar provision was made for growers of flaxseed and peanuts. For flaxseed the payment was set at $10 per acre; for peanuts $30 per acre. The acreage payments were offered conditionally, depending on appropriations by Congress. Additional teeth were to be put into the goals program by amending soil conservation plans for 1943 to provide for a deduction from the farm-production allowance when acreage in war crops - including soybeans, flaxseed, and peanuts - fell below 90 percent of the individual farm goal. The deduction was to be $15 for each acre under 90 percent of the goal.

Acreage payments and penalties on an individual-farm basis led to strong protests. Congress did not appropriate the money needed. The program of acreage payments and penalties was later withdrawn. On April 8 support prices for 1943 oil crops were revised upward: Soybeans to $1.80 per bushel; flaxseed to $2.85 per bushel (Minneapolis basis), and peanuts to $140 per ton for Virginia and Spanish type peanuts and $132 per ton for the Runner type. 26/

Marketing quotas and acreage allotments for 1943-crop peanuts were revoked in June 1943 by the War Food Administration. Commodity Credit Corporation was constituted the sole purchaser of 1943-crop farmers' stock peanuts other than those used for planting or processed by growers on the farm where grown. Prices to be paid by cleaners and shellers purchasing peanuts from Commodity Credit Corporation were set at $26 to $35 per ton higher than prices paid by Commodity Credit Corporation, depending on type and location of the peanuts. Prices to be paid by oil-millers were set at $47 to $61 per ton lower than prices paid by the Corporation. Prices to be paid by oil-millers were determined chiefly on the basis of the prevailing market values of their products under ceiling prices. It was the object of Commodity Credit Corporation to balance off losses incurred in resales to crushers by profits made on sales to cleaners

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25/ U. S. Dept. of Agr. Press Release 1441-43, Jan. 26, 1943.
26/ U. S. Dept. of Agr. Press Release 2063-43, Apr. 8, 1943.

and shellers. On the whole, this program worked well, although there was strong incentive to market as much of the peanut crop as possible to the edible-peanut trade, to the detriment of the original objective of increasing production of peanut oil.

Substantially the same methods were used in the 1943 season to support prices of soybeans, flaxseed, and cottonseed as in the 1942 season. Price support was offered for cottonseed chiefly to put cottonseed producers on an equitable basis with producers of other oil crops. Because of limited crushing facilities in the main soybean belt, the Commodity Credit Corporation again undertook to subsidize shipment of a part of the soybean production in the North Central States to the South and Southwest for crushing.

Two additional price-supporting programs affecting oil crops were in effect during the 1943 marketing year. These were the minimum-price offer by the Commodity Credit Corporation of loans of $3.75 per gallon on domestic olive oil to crushers paying not less than specified minimum prices for olives for oil (averaging about $123 per ton), and the offer to purchase castor beans in the 1943 castor-bean seed program at 6¢ a pound for beans in the hull, basis 70 percent kernel content.

Acreages of soybeans, flaxseed, and peanuts, in 1943, all exceeded the 1942 acreages. But except for flaxseed the goals were not achieved. Soybean acreage at 10.4 million was 13 percent under the goal. Peanut acreage, at 3.5 million was 37 percent under the goal. Flaxseed, at 6.2 million acres, a new record high, was 12 percent in excess of the goal. The achievement for soybeans was the more remarkable in that it was accomplished with a price ratio of soybeans to corn in the 1942 marketing year of only 1.75 to 1. Similarly, peanut acreage was expanded at a time when the price of peanuts per pound was only 0.32 the price of cotton per pound. The flaxseed-wheat price ratio in the 1942-43 season was 2.15 to 1, a ratio distinctly favorable to flaxseed.

The area of cotton in cultivation July 1, 1943 amounted to 21,942,000 acres, 2 percent less than the goal and 6 percent under the 1942 acreage. Yields of cotton were not so favorable as in 1942, and production of cottonseed was 10 percent less in 1943 than in the previous year. Output of soybean oil and the peanut production were slightly larger than the year before. But total production of vegetable oil from domestic oilseeds declined from 3.7 billion pounds in 1942-43 to 3.6 billion pounds in 1943-44. Nevertheless 1943-44 was the banner year in production of fats and oils. The record-breaking pig crop in 1943 resulted in a flood of hogs to market in the marketing year beginning in October. Output of lard reached 3,267 million pounds, about 1,000 million pounds above normal. Output of inedible greases also reached new heights. Despite a decline in butter production, total output of fats and oils was in excess of 11,000 million pounds, a record never before and not since attained.

The Fats and Oils Branch of the War Food Administration was not fully satisfied with these prospects. Output of peanut oil in 1942-43 had been below expectations. Representation was made to the Commodity Credit

Corporation indicating the desirability of restricting the quantity of peanuts taken by the edible-peanut trade to permit some expansion in production of peanut oil. In Amendment 1 to Commodity Credit Corporation Order 4, issued August 18, the aggregate quantity of 1943 crop farmers' stock peanuts which the Corporation might authorize for cleaning and shelling was limited to 1,400 million pounds. Under Food Distribution Order 78, effective September 1, the use of peanuts for domestic civilian consumption was limited in any quarter to 140 percent of use in the corresponding quarter of 1942 for peanut butter, and to 100 percent for other edible products. Strong opposition to these restrictions was brought by manufacturers of peanut butter and confectioners. The quotas were suspended October 1. It was announced in late October that a new order was being considered to require manufacturers to report their monthly use of peanuts to provide a proper basis for reinstating quotas at a later date, if necessary. Such an order, in fact, was issued December 15 (after termination of the previous order December 14). The new order, FDO 89, permitted the Director of Food Distribution to establish quotas. No action was taken under this order except to require monthly reports from manufacturers of edible-peanut products. The principal argument used by opponents of the restriction order was that whole-peanut products were more efficient sources of human nutrients than peanut oil, and peanut cake and meal fed to livestock.

A slightly smaller quantity of peanuts was produced in 1943 than in 1942 (lower yields more than offsetting a larger acreage). But the quantity of peanuts cleaned and shelled increased slightly. The quantity of farmers' stock peanuts crushed increased from 391 million pounds to 408 million pounds, partly as a result of the release of some stockpile peanuts by Commodity Credit Corporation late in the season. This increase, together with a somewhat larger quantity of oilstock shelled peanuts available for crushing, produced a total gain of 2 million pounds in output of peanut oil, an almost negligible expansion in the light of the high hopes that had been held for peanuts and peanut oil.

An early end of the war was not in sight during the summer of 1943 when plans were being made for production programs for 1944. The oil crops goals committee on August 23 proposed a goal of 14 million acres for soybeans to be harvested as beans in 1944, a considerable increase over the 1943 acreage; 6.2 million acres of flaxseed to be planted, about equal to the record acreage of 1943; and 5.5 million acres of peanuts to be picked and threshed, again aiming at the ambitious target of the previous year. The committee also recommended that soybean prices be supported at not less than twice the price of corn in the Corn Belt, flaxseed at not less than twice the price of wheat, and peanuts at not less than 4/10 the price of cotton on a pound basis. These ratios were designed to be favorable to a high level of production of oil crops. 27/

The tentative goals recommended by the Committee were transmitted to the States in September. Minor modifications made by State committees were accepted

27/ Production Goals 1944: Oilcrops. Report of the 1944 Goals Committee: Oilcrops. 35pp. (dittoed), Aug. 23, 1943.

by the Administration. The goals publicly announced in November were as follows: Soybeans for beans, 13,654,000 acres; flaxseed planted, 5,895,000 acres; peanuts grown alone for all purposes, 6,158,000 (equivalent to 4,964,000 acres picked and threshed). The cotton goal was set at 22,277,000 acres in cultivation July 1. 28/

No mention was made of support prices for 1944 oil crops until late January 1944. At that time the support price for flaxseed was placed at $2.95 per bushel (No. 1 flaxseed, Minneapolis basis), 10 cents under the ceiling price. The support price for peanuts was placed at $140 to $150 per ton, depending on type, and the support price for soybeans was raised to $1.94 per bushel. 29/ In the case of soybeans an increased subsidy was involved. Ceiling prices of soybean oil and soybean meal imposed a limit on the price soybean crushers could pay for soybeans. This price was approximately $1.75 per bushel. Any rise above that level would involve a rise in ceiling prices for soybean products or payment of an increased subsidy by the Government to producers or processors.

Government policy dictated recourse to the latter action. Commodity Credit Corporation had a system of contracts with processors which could readily be amended in the new-contract year to require processors to pay at least support prices for soybeans, sell to the Government at the support price and repurchase from the Government at a lower price, the difference between the two prices representing the Government subsidy. The processor could repurchase simultaneously with his sales to the Government, or he could defer repurchase until such time as he was ready to crush the beans. The latter choice provided a means of financing to assure maximum purchases of soybeans by the crushing trade.

In early February 1944 the Administration became concerned about the adequacy of the incentives for achieving production goals for certain commodities, among them oilcrops. Accordingly, commodity situations were reviewed and further recommendations were made. For oil crops it appeared likely that soybeans would fall short of the suggested goal by at least 1.5 million acres, flaxseed by fully a million acres, and peanuts by about 800,000 acres.

The oil crops subcommittee reaffirmed its original recommendations that the support price for soybeans be increased to not less than twice the price of corn in the Corn Belt, or approximately $2.10 per bushel on the basis of prevailing corn prices; and that the support price for peanuts be increased to not less than four-tenths of the price of cotton on a pound basis, or to approximately $160 per ton. It was recommended, however, that no change be made in the price of flaxseed, as it was stated that linseed oil could not readily be substituted for edible oils under the existing ceiling-price relationships and an abundant supply of flaxseed was then available in

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28/ U. S. Dept. of Agr. Press Release 1019-44, Nov. 11, 1943.
29/ U. S. Dept. of Agr. Press Release 1535-44, Jan. 26, 1944.

Argentina, and improvement in ocean shipping was in prospect. 30/ Public announcement was made on March 4 that support prices had been raised 10¢ a bushel for soybeans (to $2.04), and $10 per ton for Spanish, Virginia, and Valencia type peanuts, $5 per ton for Runner type (thus increasing supports for peanuts to $145 - $160 per ton). 31/

Subsequent actions established support prices for cottonseed at approximately the same level as in the previous season - $55 to $56 per ton at gins, basis-grade seed. For tung nuts support was set at $100 per ton, basis 19.5 percent oil content. Commodity Credit Corporation offered to buy 1944-crop tung oil at 36¢ per pound, f.o.b. mill, from crushers who paid growers not less than the support price for tung nuts. In the preceding two seasons CCC had bought the entire domestic output of tung oil, but no commitment had been made to support prices to growers. In the 1944 season, crushers were permitted to sell directly to the oil trade, with the option of selling to CCC. The average price received by growers for tung nuts was $91.80 per ton in the 1942 season and $99 per ton in the 1943 season. Prices averaged $102 per ton in the 1944 season and $98.90 in 1945.

Despite the action taken in March to increase support prices for soybeans and peanuts, results of the 1944 production program were disappointing. Soybean acreage was 25 percent below the goal, acreage of flaxseed was 51 percent below the goal, and acreage of peanuts was 38 percent below the goal. Except for flaxseed, results were not so bad when compared with the achievements of the previous year. Acreage of soybeans for beans was only 2 percent less in 1944 than in 1943, while acreage of peanuts picked and threshed was 12 percent less. Flaxseed acreage, however, fell off 53 percent from 1943 to 1944. Growing conditions in 1944 were rather favorable and oil-seed yields per acre were moderately high. The yield per acre of cotton, on a reduced total acreage, set a new record.

Total output of vegetable oil in the 1944-45 season declined to 3.4 billion pounds which was a reduction of nearly 200 million pounds from the previous season and 300 million pounds less than the record output in the 1942 season. Production of animal-fats declined even more sharply, chiefly as a result of a drop in hog slaughter. Total output of animal fats was 1.4 billion pounds less in 1944-45 than in 1943-44.

Tentative acreage goals and price supports for 1945 were publicly announced November 16, 1944. 32/ The soybean goal was set at 10,688,000 acres harvested for beans, somewhat above both the 1944 and 1943 acreages. The price of 1945-crop soybeans, it was stated, was to be supported at not less than $2.04 per bushel - no change from the 1944 season. The flaxseed

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30/ Memorandum to J. B. Hutson, Director of Food Production, from Sherman E. Johnson, Chairman, 1944 Production Goals Review Committee: Achievement of 1944 Production Goals for Strategic Commodities, Feb. 28, 1944.
31/ U. S. Dept. of Agr. Press Release 1801-44, Mar. 4, 1944.
32/ U. S. Dept. of Agr. Press Release "Proposed 1945 Support Prices on Farm Products" (Daily Summary, Nov. 20, 1944).

goal was set at 5 million planted acres. The support price for flaxseed was to be advanced 5¢ to $3 per bushel (Minneapolis basis). The peanut goal was set at 3 million acres picked and threshed, with support prices ranging from $145 to $160 per ton - essentially no change from 1944. The cotton goal was set at 20,472,000 acres in cultivation July 1, with the price of cotton to be supported at 92.5 percent of the parity price.

Flaxseed crushers in the main flaxseed belt were generally not satisfied with the production and price program announced by the Department of Agriculture. In view of the experience in the 1944 season when flaxseed acreage dropped severely, the crushers believed that the 5-million acre goal announced for 1945 would not be met with prices substantially the same as in the 1944 season. Administration price policy virtually precluded any substantial rise in the market price of flaxseed. The crushers went to the Department of Agriculture and to the Congress with the proposal that subsidies be extended to flaxseed growers to stimulate acreage and production in 1945. These representations were favorably received and $30,000,000 was authorized in an amendment to a current act, for making payments to flaxseed producers. On January 16, 1945, the Department of Agriculture announced that in addition to the price-support program for 1945-crop flaxseed, payments of $5 would be made to farmers for each acre planted to flaxseed in 1945, up to the number of acres set for each farmer as his farm goal. As a safeguard against plantings in low-yielding areas, it was stated that payments would not be made on acreage not adapted to flaxseed or properly tended, as determined by county committees of the Agricultural Adjustment Administration. 33/

Final State and national goals for 1945 also were announced on January 16. 34/ For oil crops the national goals were not greatly different from the tentative goals proposed in November. For soybeans the goal was 10,757,000 acres harvested as beans; for flaxseed 5 million acres planted; and for peanuts 3,230,000 acres picked and threshed. The goal for cotton was set at 20,507,000 acres in cultivation July 1.

Goals for soybeans and peanuts in 1945 were nearly reached. Flaxseed acreage, although more than 1 million acres greater than in 1944 was more than 1 million acres short of the goal, in spite of the added incentive of acreage payments. Announcement of acreage payments came too late to influence flaxseed plantings in the Southwest, where flaxseed is sown in the fall and winter. Acreage declines were registered in California, Arizona, Texas, and Oklahoma. The payments made the strongest appeal in the States where average flaxseed yields normally are low. Planted acreage increased 42 to 82 percent over the preceding year in South Dakota, Montana, and North Dakota. In Minnesota, a relatively high-yielding State, flaxseed acreage increased only 20 percent. In Iowa and Kansas, where flaxseed is a less important crop, acreage declined in 1945.

33/ U. S. Dept. of Agr. Press Release 83-45, released January 16, 1945.
34/ U. S. Dept. of Agr. Press Release 96-45, released January 16, 1945.

Cotton acreage rather unexpectedly fell off sharply in 1945, partly as a result of the cumulative shortage of farm labor. Cotton yield per acre also was lower than in 1944, and the production of cottonseed fell 25 percent below that of the preceding year. This was a major blow to output of edible oils in the 1945-46 season, only partly compensated by an increased output of soybean oil.

Total production of vegetable oils in 1945-46 declined another 100 million pounds, and at 3.3 billion was approximately 400 million pounds below the record achieved in the 1942-43 season. Output of animal fats, excluding butter, was off about 200 million pounds from the preceding marketing year. Butter production declined more than 300 million pounds to the lowest level in more than a quarter of a century. The sharp decline in butter followed removal of restrictions on sales of fluid cream and milk in late summer 1945, and termination of quotas governing use of butterfat in ice cream. The extremely strong demand for whole-milk products, under price relationships imposed by Government ceilings, drew heavily on the supply of milk to the detriment chiefly of the manufacturers of butter.

Summary and Conclusions

At its wartime peak, in 1943-44, production of fats and oils from domestic materials was 27 percent greater than the average for the 5 years preceding the programs. At its climax, in 1945-46, when the need for a high level of output was still great, production was only 2 percent above the base years, 1937-41. Production of butter in 1945-46 was about 780 million pounds less than the average for the base years, a decline of 35 percent. Production of animal fats other than butter was 8 percent greater than in the base years, and production of vegetable oils was 27 percent greater despite the marked falling off in output of cottonseed oil in that year.

Table 1.- Production of fats and oils from domestic materials, United States, year beginning October, 1937-45

Item	Average 1937-41	1942	1943	1944	1945
	Bil. lb.	Bil. lb.	Bil. lb.	Bil. lb.	Bil. lb.
Vegetable oils	2.6	3.7	3.6	3.4	3.3
Animal fats, excluding butter	3.9	4.8	5.6	4.3	4.2
Butter	2.2	2.1	1.8	1.8	1.4
Total	8.7	10.6	11.0	9.5	8.9

The Fats and Oils Situation, U. S. Dept. of Agri. Bur. of Agri. Economics, July-Aug. 1947, p.22.

Increased animal-fat production during the war came chiefly from a succession of good crop years beginning in 1937, with resultant large supplies

of grain feeds and from rising prices for meat animals beginning in 1941. Little conscious effort was made by the Administration to bring about increased production of animal fats as such. The decline in butter production, on the other hand, was in considerable part the result of deliberate policy to channel milk into whole-milk uses, with minimum wastage of the valuable nonfat milk solids. The major effort of the Administration to increase fat output was directed to the vegetable oil crops, soybeans, flaxseed, and peanuts. Output of cottonseed was bound to the destiny of cotton fiber. The surplus cotton position led to efforts to replace cotton to a limited extent by "war crops" such as peanuts and soybeans.

For the 4 years 1942-45, on the average, soybean acreage was 7 percent under goals, flaxseed acreage was 14 percent under, and peanut acreage was 28 percent under. Despite the evident inability of the Administration to predetermine acreage and production of the oil crops, a fairly high level of output was established, with the 4-year average acreage of soybeans 75 percent greater than acreage in 1941, and with increases of 28 percent for flaxseed and 72 percent for peanuts. Except for soybeans, yields per acre were lower on the average than in 1941.

Table 2.- Acreage goals and actual acreage: Oilcrops, 1941-45

Program year and date of action	Soybeans harvested as beans			Flaxseed planted			Peanuts picked and threshed		
	Acreage	Percentage of goal	Percentage of previous year	Acreage	Percentage of goal	Percentage of previous year	Acreage	Percentage of goal	Percentage of previous year
	1,000 acres	Percent	Percent	1,000 acres	Percent	Percent	1,000 acres	Percent	Percent
1941									
Actual acreage	5,889			3,462			1,900		
1942									
Goal 1-16-42	9,000			4,500			5,000		
Actual acreage	9,894	110	168	4,698	104	136	3,362	67	177
1943									
Goal 1-26-43	12,000			5,500			5,500		
Actual acreage	10,397	87	105	6,182	112	132	3,492	63	104
1944									
Goal 11-11-43	13,654			5,895			4,964		
Actual acreage	10,232	75	98	2,887	49	47	3,068	62	88
1945									
Goal 1-15-45	10,757			5,000			3,230		
Actual acreage	10,661	99	104	3,953	79	137	3,160	98	103

Price supports were offered during the war for the major oil crops, but, except for purchases of soybeans for diversion to Southern mills and the purchase of some soybean oil at interior mills where marketing facilities were inadequate, the Government was not called upon to make good on its price promises. This resulted from the fact that price ceilings established early in

the war were at levels much below "normal" considering the strong upward climb in demand. Ceilings were "forced" in some instances by payments of subsidies to processors, as in the case of soybeans, or to farmers in the form of acreage payments (flaxseed). Ceiling-price control served to dampen the rise in returns to growers of oilseeds. But this had important consequences to the production program for oilseeds only to the extent that prices of competing products such as wheat and corn and prices of cost items were permitted to rise relative to prices of the oilseeds. During the early war years the sharp advance in oilseed prices, at a time when supplies of wheat and corn were abundant, was sufficient to induce a large expansion in oilseed production. In the later war years the need for grains became more pressing, and price policy was shifted to favor the increased production of grain, partly at the expense of oilseeds. Land resources were limited, and it was not possible to obtain increased production of all crops simultaneously.

Factors other than prices also were influential in shaping production. The patriotic urge among farmers to produce what was stated by the Government to be necessary had a marked influence on production in 1942. Detailed Government programs in later years also had some effect, although the effects are not clearly discernible after 1942. Favorable weather and favorable yields also served to sustain the production of soybeans and peanuts near the high levels established early in the war, and the production of flaxseed considerably above prewar. Reductions in the farm labor force, and sharp increases in farm-wage rates, had little influence in holding down production of oil crops, except in the South. One of the major causes of the declining trend in cotton acreage apparently was the steady drift of southern farm workers to factories and to the military forces.

Table 3.- Price Supports, Price Ceilings, and Average Prices Received by Farmers for Oilseeds, Crop Years 1940-45

Item	Soybeans per bushel	Flaxseed per bushel	Peanuts per ton	Cottonseed per ton	Castor beans in the hull per pound	Tung nuts per ton
	Dollars	Dollars	Dollars	Dollars	Cents	Dollars
Average price received						
1940	.90	1.42	66.60	21.72	---	60.00
1941	1.55	1.79	93.20	47.65	3.5 1/	88.30
1942						
Support price	1.60	2.40(Minn.)	78-82 2/	49-50(gins)	4.0 3/	---
Ceiling price	1.66	---	---	---	---	---
Average price received	1.61	2.36	121.00	45.60	3.7	91.80
1943						
Support price	1.80	2.85(Minn.)	132-140	55-56(gins)	6.0 3/	---
Ceiling price	1.92	3.05(Minn.)	154-176	---	---	---
Average price received	1.82	2.83	142.40	52.10	5.6	99.00
1944						
Support price	2.04	2.95(Minn.)	145-160	55-56(gins)	---	100.00
Ceiling price	2.10	3.10(Minn.)	167.5-180.5 4/	---	---	---
Average price received	2.05	2.90	160.60	52.70	---	102.00
1945						
Support price	2.04	3.00(Minn.) 5/	145-160	55-56(gins)	---	100.00
Ceiling Price	2.10	3.10(Minn.)	167.5-180.5 4/	---	---	---
Average Price received	2.08	2.89 5/	164.60	51.10	---	98.90

1/ Price paid for hulled beans; equivalent to about 2.3 cents per pound, in-the hull basis.
2/ Peanuts for oil.
3/ Basis 70 percent yield of shelled beans.
4/ Basis 70 percent sound, mature kernels.
5/ In addition, a bonus of $5 per planted acre was offered, equivalent on the basis of the national average yield in 1945 to 55 cents per bushel of flaxseed produced.

APPENDIX A

Commodity Credit Corporation Programs for Soybeans

By George L. Prichard, Fats and Oils Branch,
Production and Marketing Administration

Prices for soybeans during the war were supported by the Commodity Credit Corporation by means of loans, purchases, and contracts with processors. To induce larger production, support prices for soybeans beginning with the 1943 season were placed above the price the processors could pay on the basis of ceiling prices prevailing for soybean oil and soybean meal. Provision was made in the CCC contracts with processors whereby the Government paid the difference. The volume of soybeans placed under loan each year was relatively small but large quantities were purchased by CCC from the 1942 and 1943 crops, and shipped to mills outside the Midwest for crushing. Only negligible quantities were purchased from the 1944 and 1945 crops.

Production of soybeans in 1942 was expanded to more than 187 million bushels, compared with about 107 million bushels in 1941. Production continued at more than 190 million bushels each year during the remainder of the war. Total crushings in the United States and approximate total losses to CCC under the soybean programs, including cost of diversion of soybeans from the Midwest to other areas for crushing, were:

Bushels	Crop	Losses
77,131,000	1941	None
133,454,000	1942	$15,340,000
142,306,000	1943	11,800,000
153,402,000	1944	44,400,000
159,460,000	1945	23,750,000

Although crushing capacity in the Midwest was expanded rapidly during the war (and in 1947 approached 200,000,000 bushels per year), it did not at first keep pace with the expanded production of soybeans in that area. It was necessary, therefore, for CCC to arrange to have the surplus of Midwest soybeans crushed either in the South where surplus crushing capacity was available at the cottonseed mills, or on the Pacific Coast where other surplus capacity was available because normal imports of copra and other oil-bearing material had been cut off.

During 1942 and 1943 these areas were supplied with soybeans bought by CCC in the Midwest and shipped to mills for crushing under processor contracts. In 1944 and 1945 such mills were given contracts similar to those executed with mills in the Midwest. Under these 1944 and 1945 contracts, CCC specified the maximum quantity of soybeans and the area of purchase. The mill could then arrange for its own purchases and shipment of Midwest soybeans.

Approximate crushings of Midwest soybeans at mills located in other areas and approximate total cost to CCC were:

Crop	Cotton Belt		Pacific Coast	
	Bushels	Subsidy	Bushels	Subsidy
1942	17,000,000	$ 5,870,000	3,250,000	$ 520,000
1943	20,500,000	6,260,000	2,425,000	375,000
1944	7,550,000	2,840,000	1,700,000	640,000
1945	4,400,000	1,570,000	3,140,000	530,000
	49,450,000	$16,540,000	10,515,000	$ 2,065,000

In addition, about 5,000,000 bushels were crushed at East Coast mills from the 1942 crop, making a grand total of about 65,000,000 bushels of soybeans crushed outside the area of production from the crops produced during the 4 war years.

Separate contracts were offered processors for each crop year, and these contracts were improved as operations continued. For example, in 1942 differentials were made for "high oil content" and "low oil content" soybeans. Beginning with the processor contracts for the 1943 crop, however, settlements were made on the basis of actual oil content as determined by chemical analysis. Considerable work was carried out on this item. By prescribing the equipment and methods, as well as by close inspection and supervision of approved laboratories, it was possible to obtain a high degree of accuracy and uniformity in the analysis of soybeans.

Briefly, the 1945-crop contract which operated on the same principles as previous contracts, provided:

1. The processor was obligated to purchase all soybeans from producers at not less than the minimum support price, or to purchase soybeans only from others who had paid producers not less than the support price.

2. CCC then purchased all soybeans from the processor at the base support price without regard to premiums or discounts for quality differentials and resold them to the processor at a base chemical-grade price determined on the basis of (1) the type and daily capacity of the equipment in the processor's plant and (2) an amount agreed upon as the appropriate amount the processor would realize because of including freight and transportation tax from Decatur, Ill., in his sales price for soybean meal under OPA ceiling prices. These base chemical-grade prices applied to soybeans having an oil content of 18.5 percent, basis 14 percent moisture, and were adjusted for soybeans varying from this standard on basis of actual oil content, as determined by chemical analysis. The processor could repurchase soybeans simultaneously with his sale to CCC or, if he so elected, could defer the repurchase until he was ready to crush the particular lot, in which case interest was paid CCC at the rate of 3 percent per annum.

3. CCC would purchase soybean oil or meal offered by the processor in carlots at specified prices slightly below ceilings.

4. The processor would pay CCC any increases in ceiling prices for all oil or meal on hand on the effective date of the increase and the amount determined by CCC to be due with respect to oil or meal produced thereafter from soybeans on hand. The base chemical grade price was also adjusted for such ceiling increases. CCC would pay the processor in similar manner for any decreases in ceiling prices for soybean oil or meal.

Production of soybean oil was increased to unprecedented levels, partly as a result of support prices and subsidy operations. Production in 1944 and 1945 surpassed the production of cottonseed oil which for years was the largest domestic source of vegetable oil. Expanded production of soybean oil enabled the United States to meet its minimum requirements for vegetable oils during a period when imports from many sources were cut off. This expansion was achieved at a relatively small per unit cost to the Government and this cost can be charged, at least in part, to the Government's policy of maintaining prices at reasonable levels. But if the entire cost of the subsidy programs were charged to the oil produced from the war crops it would amount to less than 2 cents per pound of crude oil. In addition, the large quantity of meal produced (an average of over 3,500,000 tons each crop) was one of the major factors in expanding the production of livestock, poultry, and dairy products during the war.

APPENDIX B

Brief Summary of Research on Castor Beans in Support of Production and Price-Supporting Programs by AAA and CCC for Oils during Second World War 35/

By D. M. Crooks, Bureau of Plant Industry, Soils and Agricultural Engineering cooperating with State Agricultural Experiment Stations

As a matter of preparation for possible commercial production of castor beans in this country intensive work was initiated in 1941 to determine the area best suited to production, to collect, evaluate, and increase seed supplies of suitable strains from a mixture of many miscellaneous types and nonproductive hybrids, and to determine the most effective cultural methods and what production problems might be encountered by growers.

Experimental plantings at 73 locations in 1941, 60 in 1942, and 34 in 1943, along with several thousand acres of seed-increase fields in the same years, show that the region of adaptation is determined by at least three major factors: disease, length of growing season, and rainfall. In most of the Gulf Coastal region, the gray mold (Sclerotinia ricini Godfrey) disease caused severe loss by destroying the flowering spikes in all stages. Elsewhere in areas that have growing seasons of at least 180 days, the yields of the three common varieties - Conner, Doughty II, and Kentucky 38 - were good, ranging from a few pounds to more than 1,500 pounds an acre. Observation in Kansas, Oklahoma, and Texas indicates that between 15 and 20 inches of rainfall during the months from April to September are essential to satisfactory yields. Excellent yields, running as high as 2,000 pounds per acre, were obtained with irrigation in the lower Rio Grande Valley and in New Mexico, Arizona, and southern California, but the varieties tested cannot compete with crops of high value.

The area of adaptation for the varieties tested includes roughly the southeastern half of Kansas, the State of Missouri, the southern third of Illinois, southern Indiana, the southern tip of Ohio, the western and central parts of Kentucky and Tennessee, the State of Arkansas, all of Oklahoma, except the panhandle, and the part of Texas lying north of Dallas and east of Lubbock and the part within a radius of about 50 miles of Corpus Christi.

Within the general area here outlined the three main characteristics of the soil that is satisfactory for this crop are exceptionally good surface and under drainage, sufficient subsoil permeability to insure the adequate movement of air and water and growth of roots, and the capacity to warm up readily in the spring.

35/ Summarized from: Domingo, W. E. and Crooks, D. M., Investigations with the Castor Bean Plant: I. Adaptation and Variety Tests, II. Rate-of-Planting and Date-of-Planting Tests, III. Fertilizers, Clipping, Method of Planting, and Time of Harvest. Jour. of the Amer. Soc. of Agronomy, Vol. 37, No. 9, 10, 11 (Sept., Oct., Nov.) 1945.

In general, the cost of growing the crop was about the same as for growing cotton or corn. The time required for harvesting was about twice that of corn. Varieties grown for seed increase were selected because of their non-popping or non-shattering characteristics. Machines were designed to shell the hulls from the beans and some commercial concerns manufactured and offered the hullers on the market.