former wheat land to feed grains or to certain other crops. For the plainting season of 1944, however, no such bonuses were offered. This change in policy was reflected in enlarged sowings of wheat and in reduced sowings of barley, oats, and flaxseed. The total area planted to barley and oats for 1944 was cut 2.2 million acres from the preceding year.

Throughout the 1944 growing season weather conditions were reasonably favorable for Canada's major feed-grain crops. Yields per acre proved to be not only above average, but also above the yields recorded in 1943. Despite the reduction in sown acreage, therefore, the total outturn of barley and oats was about the same as in the preceding year and second only to the record output of 1942. As contrasted with 1943, the Canadian feed-grain crop of 1944 was distributed fairly normally, with much better harvests in the eastern provinces, particularly Ontario.

XV. ARGENTINA: INCREASED DOMESTIC USE OF FEED GRAINS

In Argentina rye must be added to the usual principal feed grains: corn, oats, and barley. However, corn is by far the most important of the four, and its predominance is more pronounced with respect to grain production than to sown acreage, since the proportion of the sown area that is harvested is usually larger for corn than for oats and considerably larger than for rye. In general, the practice of feeding unharvested grain crops to animals is more common in Argentina than in other important grain-producing countries, and this practice has become increasingly important during recent years.

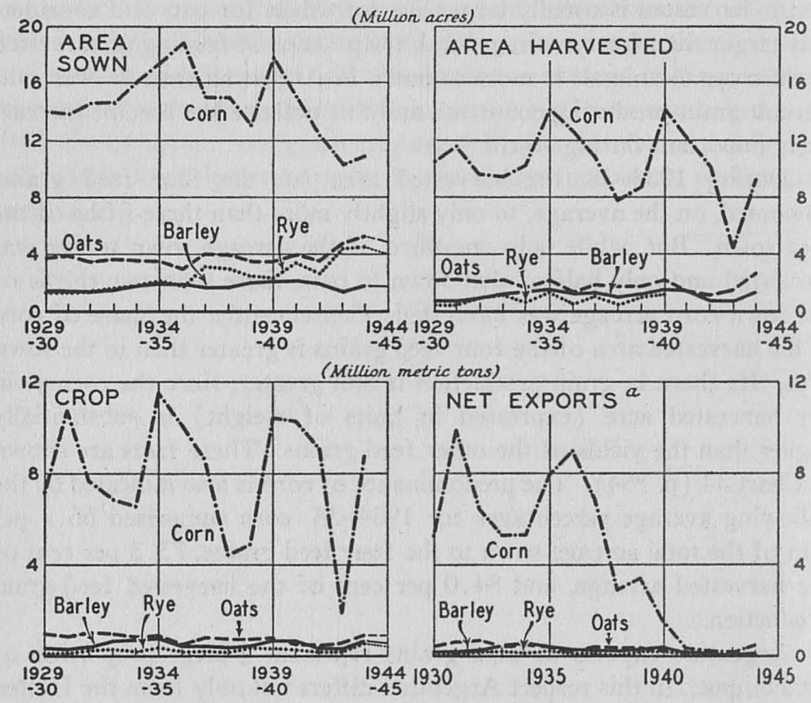
During 1934–38, the harvested area for the four feed grains amounted, on the average, to only slightly more than three-fifths of the area sown. But, while only one-third of the acreage sown to rye was harvested and only half of that sown to oats, more than two-thirds of the sown-corn acreage was harvested. Consequently, the share of corn in the harvested area of the four feed grains is greater than in the sown area. Its share in grain production is still greater, since the corn yield per harvested acre (expressed in units of weight) is substantially higher than the yields of the other feed grains. These facts are shown in Chart 34 (p. 164). The predominance of corn is also indicated by the following average percentages for 1934–38: corn comprised 66.7 per cent of the total acreage sown to the four feed grains, 73.3 per cent of the harvested acreage, and 84.0 per cent of the harvested feed-grain production.

Argentine exports of feed grains represent a large proportion of total output. In this respect Argentina differs not only from the United States but also from Canada. Although the latter's feed-grain exports are considerable, they usually comprise a substantially smaller proportion of the total production than do the exports of Argentina. The proportion of exports to production is particularly high for Argentine corn. Consequently, the share of corn in the export movement of Argentine feed grains is still greater than its share in feed-grain production. For 1934–39 this percentage was as high as 88.9. In combination, these facts clearly establish the predominance of corn in Argentina's feed-grain economy and suggest that only corn is sufficiently important to warrant detailed consideration in the present chapter.

With respect to the other feed grains, however, it seems worth

while to note that their domestic utilization has increased considerably during the war years. This follows from the fact that, while the cultivation of feed grains other than corn did not decline during the war (that of oats and rye even substantially expanded) the exports of these grains were drastically reduced in percentage terms during 1940–43 (Chart 34). As the war narrowed outlets for Argentine feed-

CHART 34.—ARGENTINE ACREAGE, CROPS, AND NET EXPORTS OF RYE AND FEED GRAINS, FROM 1929–30*



* Data for recent years chiefly in Tables 41 and 59. Double-year designations used to cover harvest period from December, for oats, barley, and rye, to the following April–May for corn.

[a] Calendar-year trade, except for corn which is for the 12 months beginning April of the year indicated.

grain exports, the proportion of the crops fed to animals unharvested apparently increased as did also the domestic disappearance of harvested grain. The tabulation below shows the average domestic utilization (production minus exports) of oats, barley, and rye in Argentina during 1940–44, as compared with figures for 1934–39 (in thousand metric

Period	Oats	Barley	Rye
1934–39 av.	409	225	120
1940–44 av.	565	444	260

tons). After the good feed-grain harvest of 1943 the quantities of these grains available for domestic utilization were even larger than the average for 1940–44.

It must be noted, however, that a large portion of the harvested barley and rye used within Argentina is not fed to animals. Much of the rye utilized domestically is used for seed (before the war nearly all of it was so used), while a considerable portion of the barley is used in the manufacture of beer. By far the greater part of the barley harvested for grain consists of malting barley, and this portion has tended to increase during recent years. This explains why the proportion of the sown-barley area finally harvested has not tended to decrease during recent years, whereas marked declines have been registered for both oats and rye.[1]

CORN SUPPLIES AND UTILIZATION

While the areas sown to oats and rye have increased during the war period, the acreage sown to corn has tended to decrease (see Chart 34, p. 164). The corn acreages sown for the crops harvested in April–May of 1943 and of 1944 were only about two-thirds as large as the prewar average. During the three preceding war years, however, the areas sown to corn were still large, and yields per acre were so high that the harvested crops were quite large. This created immediate difficulties in disposing of and storing large supplies of corn, since corn exports had declined from the prewar period even more than wheat exports. As a result, stocks of old-crop corn accumulated rapidly. On April 1, 1941 they reached 6.41 million metric tons or 252 million bushels; and they increased to 8.11 million tons, 319 million bushels, on April 1, 1942 (Chart 35, p. 166), although large quantities (estimated by the United States Department of Agriculture at about 6.32 million tons)[2] were disposed of for fuel, increased feeding, and certain industrial uses during April–March 1941–42.

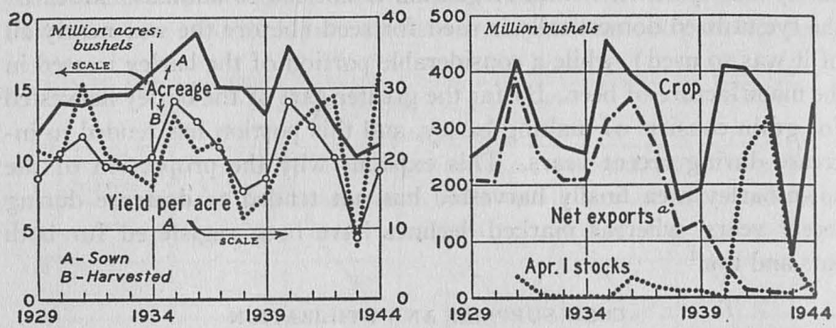
During the following April–March crop year, however, so much corn was used for fuel and feed that stocks of old-crop corn on April 1, 1943 were reduced to 1.63 million tons (64 million bushels). In 1942–43 the residual item, covering fuel use, increased feeding, and some industrial purposes, was placed at 13.28 million tons (523 million

[1] V. C. Brunini, J. M. D. Nielsen, and R. Deandreis, *Relevamiento Geográfico de la Producción Argentina de Granos* (Argentina, Comisión Nacional de Granos y Elevadores, 1939), p. 89.

[2] *Foreign Crops and Markets*, April 1944, p. 143. This is a residual item. It does not include normal domestic requirements for corn estimated for 1941–42 at 71 million bushels, most of which was fed to animals.

bushels) by the United States Department of Agriculture. By far the larger portion of this consisted of corn for fuel.

CHART 35.—ARGENTINE CORN ACREAGE, YIELD, CROP, STOCKS, AND TRADE, FROM 1929*



* Data for recent years chiefly in Tables 41 and 59. Years refer to year of harvest.

[a] April–March trade, beginning in year indicated.

The use of corn for fuel was resorted to not simply as a means of absorbing a surplus product that could not move into international markets through normal channels of trade: it was a sheer necessity to replace coal and petroleum badly needed by Argentine power plants, railroads, and industry. In normal years Argentina required nearly 3 million tons of coal and around 6 million tons of liquid fuel, of which practically all the former and about half the latter were imported. With further industrial expansion during the war the requirement for fuel rose while imports fell because of the increasing tightness of ocean tonnage. Fuel shortage reached the acute stage in the middle of 1942.[3] Under Argentine conditions corn was the best substitute for normal kinds of fuel, but other agricultural products, such as oilcake, linseed oil (as motor fuel), and wheat, were also used in substantial quantities (p. 62).

The corn crop harvested in April–May of 1943, moreover, was the smallest since 1917. Late drought resulted in a near failure. As only a little more than two-fifths of the sown acreage was harvested, the yield per sown acre was only 7.5 bushels (Chart 35), and the total corn production came to no more than 1.94 million tons (76 million bushels). Since the initial stocks on April 1, 1943 were only moderate, the total supplies of corn for April–March 1943–44 amounted to only 3.57 million tons (141 million bushels). Although this figure is equal

[3] On Argentina's fuel position and problems, see a valuable editorial in *Times of Argentina*, Feb. 15, 1943, pp. 5, 10; for recent developments, see *ibid.*, June 19, 1944, p. 18, and *The Situation in Argentina*, Mar. 27, 1944, p. 2, and Jan. 29, 1945, p. 1.

to only a little more than two-fifths of the average total supplies for 1934–39, it is nevertheless over 50 per cent larger than the average retention of corn for domestic utilization and year-end stocks during the same period and nearly twice as large as the average domestic utilization alone. Since the export outlets for corn during April–March 1943–44 were very limited, even these moderate supplies were sufficient to cover normal feed and seed requirements. But the need for corn as fuel continued to persist, and requirements for feed corn had greatly increased since 1939.

The hog population was mainly responsible for the larger requirements for corn as feed. The number of hogs in Argentina had greatly increased since the beginning of the war, and hog husbandry had been intensified in response to greatly increased export and domestic demands for pork products. According to census data, there were 5.71 million hogs in Argentina on September 30, 1942, as compared with 3.97 million in 1937—an increase of about 44 per cent. Figures on commercial slaughterings show an even greater increase: from 1.35 million hogs slaughtered on the average in 1935–39 to 2.46 million in 1942 and to 3.50 million in 1943.[4]

In view of the sharp increase in Argentina's hog population, the corn supplies of 3.57 million tons for April–March 1943–44 could reasonably be regarded as short. This situation, early recognized by the Argentine Ministry of Agriculture, induced the government to prohibit corn exports on August 6, 1943. However, when pastures later improved under the influence of more favorable weather, and when sales of unmillable wheat for feed at cut-rate prices (p. 61) somewhat reduced current requirements for corn, this embargo was gradually relaxed. On August 27 the government fixed a small maximum quota of 15,000 metric tons for corn exports. Some three weeks later (by decree of September 17) the Minister of Agriculture was authorized to allow the exportation of corn in accordance with foreign commitments made before the embargo was first imposed on August 6. Finally by a decree of October 22, the authority of the Minister of Agriculture was widened; thenceforth he was authorized to permit the exportation of corn when domestic market requirements were assured.[5] But in spite of these relaxations, the corn exports of April–March 1943–44 were very

[4] Data on prewar slaughtering from Argentina, Ministerio de Agricultura, Direccion de Propaganda y Publicaciones, *Almanaque*, 1941, XVI, 218; for later years from *Boletin Mensual*, various issues.

[5] For these regulations on corn exports, see *Boletin Informativo*, Sept. 15, 1943, p. 398; Oct. 15, 1943, p. 427; and Nov. 15, 1943, p. 464.

small. They amounted to only 169,000 tons (7 million bushels), as compared with 220,000 tons during the preceding year and an average of 6,011,000 tons (237 million bushels) for 1934–39. Consequently, the net supplies of corn for domestic utilization and stocks during April–March 1943–44 amounted to 3.40 million tons. Nearly all of these supplies were actually utilized within the country, since the old-crop stocks remaining on April 1, 1944 were officially estimated at only 124,000 tons (5 million bushels).[6]

The situation completely changed, however, after a good new crop was harvested in April–May 1944. Although the sown acreage for this crop was only slightly larger than that of the previous year, the harvested acreage was more than twice as large as in 1943, and the yield per sown acre was the highest since 1924—31.5 bushels. The new crop was first officially estimated at 9.10 million tons (358 million bushels), but the final estimate was slightly reduced to 8.73 million tons (344 million bushels). The total output was thus only moderately larger than the average for 1934–38 (7.89 million tons), because the acreage sown was only about two-thirds of the prewar average. But it raised the total supplies of corn for April–March 1944–45 to 8.85 million tons, a figure nearly two and a half times as large as that for the previous year. The current supplies not only provide ample corn for domestic feed requirements but they also make available large quantities for export or for use as fuel.

The Argentine Ministry of Agriculture estimated the 1944–45 requirements for corn for feed and seed at the unusually high level of 3.64 million tons (143 million bushels).[7] This is about double the average domestic disappearance for 1934–39, but only a little above the total domestic disappearance in 1943–44 when only moderate quantities were used for fuel. The trade generally regarded this estimate as excessive. But it may not prove to be too high, since the number of hogs has continued to increase rapidly and since pastures were seriously damaged by severe, prolonged drought which persisted throughout the year. The United States Department of Agriculture reports that hog marketings during July–September 1944 were approximately 40 per cent above the

[6] According to the U.S. Department of Agriculture (*Foreign Crops and Markets*, April 1944, p. 143), 53 million bushels (1.35 million tons of corn were utilized during April–March 1943–44 for fuel and for feeding in excess of normal feed requirements (normal feed and seed requirements are estimated at about 75 million bushels). We are not in a position to say how much of these 53 million bushels was used for feed and how much for fuel. Under the conditions of corn shortage peculiar to 1943–44, it is probable that fuel use did not represent such a large proportion of this moderate residual as was the case in 1942–43.

[7] *Boletin Mensual*, April 1944, XLV, 16.

heavy marketings a year earlier and that the production of pork during the first seven months of 1944 exceeded that of 1943 by 26 per cent. The same source states that the lard yield per head has been increased as a result of the heavier average weight of slaughtered hogs.[8] From these scattered facts we infer that feed use of corn during 1944–45 may be much larger than on the average in prewar years.

Exports from the new corn crop were appreciably larger than the small exports of the previous year, but they still remained small because of the shortage of tonnage for corn shipments to Europe. During the six months beginning April 1, 1944, exports continually increased (from only 11,500 tons in April, they rose to 111,000 tons in September), but they declined to 27,000 tons in November. Total exports through December amounted to 525,000 tons (21 million bushels), as compared with only 145,000 tons in the same months of the preceding year. United States purchases accounted for most of this increase. But when harvesting of the good United States corn crop began, the flow of Argentine corn to this country was practically discontinued—a development reflected in the great decline of exports in November. Nearly 300,000 tons of corn were shipped to the United States before the end of December. During the same period exports to Europe, mainly to the United Kingdom, but also to some neutral countries, were not much more than half as large.

Since Argentine corn exports reached only about half a million tons before the end of 1944 and since there is little hope for a substantial increase in shipments to Europe before April 1, 1945, we anticipate that the total exports for April–March 1944–45 will be small. Consequently, there are ample supplies of corn in Argentina for use as fuel. This use increased appreciably after the good crop was harvested in April–May. Substantial sales were made in the open market, particularly after trading in corn futures for fuel was started on July 20; and the Agricultural Regulating Board (ARB) sold large additional quantities of corn for fuel directly to the public utilities. However, the trade press does not expect as much corn to be used for fuel in the current crop year as during 1941–42 and 1942–43, since the supply of more economical types of fuel (such as timber and coal from Brazil and Chile) is now much more adequate. In November the utilization of corn for fuel was already decreasing.[9] Hence, the corn carryover in Argentina on April 1, 1945 will undoubtedly be substantial.

[8] *Foreign Crops and Markets*, Aug. 7, 1944, p. 63, and Dec. 4, 1944, p. 259.

[9] *Times of Argentina*, June 19, 1944, p. 18, and Nov. 20, 1944, p. 17.

MARKET REGULATIONS AND PRICES

Since the corn crop harvested in April–May 1943 was very small, the government decided that there was no need to guarantee a minimum price for that crop. In expectation of a small harvest, market prices for old-crop corn had risen above the basic minimum purchase price of the Grain Regulating Board (GRB) (4.40 pesos per 100 kilograms—33.3 cents, U.S., per bushel—for bagged, shelled corn on rail at Buenos Aires) as early as January 1943. In February the monthly average market price was 6.20 pesos per 100 kilograms.[10] This price increase appears still more spectacular when it is compared with the selling prices of the GRB, which during September–October 1942 had been only 3 pesos per 100 kilograms (Buenos Aires) for corn for ordinary domestic uses, and still lower for corn sold for fuel—varying during the same months from 1.72½ to 2.10 pesos.

In March 1943, the monthly average price of corn in Buenos Aires declined to 5.79 pesos per 100 kilograms, and it remained on that level in April. But, when it became definitely known that the new crop was poor, the price started to rise again in anticipation of a feed shortage. In August 1943, the monthly price averaged 7.58 pesos—two and a half times as high as the price a year earlier. Then the problem of the government was to prevent a further increase in corn prices rather than to maintain them. The prohibition of corn exports on August 6 (p. 167) and the sale of wheat for feed at much reduced prices effectively checked the advance of the corn market. Corn prices even declined substantially when a special investigation of corn stocks revealed that the supplies were larger than previously expected. In December 1943 the price of corn averaged 5.49 pesos, and it continued to decline in the following months because of reports on the excellent condition of the new crop.

In expectation of a good corn harvest in April–May 1944, the government found it advisable to guarantee a minimum price for new-crop corn. An executive decree of February 19 fixed a new basic price of 5.20 pesos per 100 kilograms (39.3 cents, U.S., per bushel).[11] This was the highest price yet fixed for corn, and it was above the current market price of old-crop corn, which averaged 4.91 pesos in March in Buenos Aires. However, by guaranteeing a minimum price, the government did not intend to constitute itself as the sole buyer of the crop.

[10] Market prices of corn are from *Boletin Mensual*, September 1944, XLV, 5.

[11] *Boletin Informativo*, June 30, 1944, pp. 7–8.

The decree stated that the ARB was to purchase (beginning April 15, 1944) only such surpluses as did not readily find other buyers. The resale price of corn for ordinary domestic consumption was fixed by this decree at 5.50 pesos per 100 kilograms and that for corn for fuel at 5.25 pesos. The decree specified that all corn for export had to be purchased from the ARB,[12] but that purchases for domestic use could be made on the open market.

Although the trade regarded the basic price of 5.20 pesos as high, the Argentine government announced early in May that the guaranteed price to corn producers had been increased to 5.95 pesos per 100 kilograms (45.0 cents, U.S., per bushel). The decree stated that the guarantee as originally set had been based on the expectation of a larger corn crop than the first official estimate indicated.[13] But the trade press commented that the government was too generous with the people's money.[14] Even the revised purchase price of the Board, however, was moderate as compared with the excessive corn prices maintained by government policies in the United States.

When the basic purchase price of corn was raised, in May 1944, the ARB resale price for corn for domestic consumption was advanced to 6.10 pesos per 100 kilograms (46.1 cents, U.S., per bushel). Although this new resale price provided for a smaller margin of profit than the old rate, the ARB sales of new-crop corn must have been small, since in no month through September 1944 was the price of corn in the open market above the minimum purchase price of the Board. The ARB selling price for exporters was raised in May to 7.75 pesos per 100 kilograms (58.6 cents, U.S., per bushel), or .75 peso above the first export price quoted in early April 1944.[15]

In the second half of September 1944, the government issued a decree, to become effective October 20, which canceled the minimum purchase price for the current crop.[16] This action was presumably taken to prevent further losses to the government on its operations in corn. A recently published report of the Argentine Ministry of Finance indicates that by far the greater portion of the total losses on government

[12] "The sole exception applies to purchases covering contracts made prior to February 20, 1944, which may be made in the open market and exported after payment of the export fee of 20 pesos per metric ton . . . . for sound corn, and 8 pesos for . . . . fuel corn" (*Foreign Crops and Markets*, April 1944, p. 144).

[13] *Boletin Informativo*, June 30, 1944, pp. 18–19. The crop suffered considerable damage as a result of excessive rainfall in April.

[14] *Times of Argentina*, May 8, 1944, p. 16.

[15] *Foreign Crops and Markets*, April 1944, p. 144, and May 1944, p. 194.

[16] *London Grain, Seed and Oil Reporter*, Sept. 23, 1944, p. 307.

grain operations during the five years ended December 31, 1943, was due to losses on corn.[17]

After October 20, 1944, when the government's guaranteed minimum price was canceled, the ARB purchased corn at prices that were usually below the previous minimum of 5.95 pesos per 100 kilograms. On October 26 the reported purchase price was 5.20 pesos; it rose to 5.40 on November 9 and remained on that level until December 7; thereafter it fluctuated on a somewhat lower level to the end of the calendar year.[18] News of the growing corn crop helped to depress prices during this period: trade reports indicated that the area sown to corn for harvest in April–May 1945 was somewhat larger than the sowings of the preceding year and as late as mid-December the condition of the new crop was reported to be good.[19] However, the first official estimate of the corn area was placed at 9,889,000 acres, about a million acres less than that planted a year ago. This would be the smallest area planted to corn since 1924. Furthermore, continued drought conditions in December and January, coupled with extremely high temperature over large areas of the corn zone, greatly reduced yield prospects. A considerable part of the corn crop is reported to be a failure in some areas of Cordoba, Santa Fe, and Entre Rios. However, in the southern portion of Santa Fe and in southeastern Cordoba, as well as in the important corn region of Buenos Aires, crop conditions were more favorable in mid-February. Timely rainfall could still effect a good recovery in these areas.[20]

These spectacular changes in crop prospects were reflected by corn-price developments: from 5.25 pesos per quintal at the beginning of January 1945 the price rose to 6.30 pesos on February 8. The market price thus exceeded the original ARB *resale* price for corn for domestic consumption. This indicates that in future months the trade may buy corn from the ARB, whereas previously ample quantities were available on the open market at the ARB fixed *purchase* price (before October 20) or even below it after this price had been canceled.

[17] *The Situation in Argentina,* Dec. 26, 1944, p. 2. According to this report the government paid out 2,838.3 million pesos in purchasing 46.7 million tons of grain during the five years ending Dec. 31, 1943. Some 41.2 million tons were resold for 1,967.2 million pesos, bringing a net loss of 442.2 million pesos. Of this loss, 398.5 million pesos were attributed to losses on corn caused by deterioration, heavy storage expenses, and the very low prices ultimately secured on sales made chiefly for fuel. In addition there was a further outlay of 100.9 million pesos on administrative expenses, interest, and commission, bringing the total net loss recorded to 543.1 million pesos.

[18] Purchase prices as reported in the *London Grain, Seed and Oil Reporter,* various issues.

[19] *Times of Argentina,* Nov. 20, 1944, p. 17; Dec. 4, 1944, p. 17; and Dec. 18, 1944, p. 15.

[20] *Foreign Crops and Markets,* Feb. 19, 1945, p. 91.

PART 3. GRAIN OUTLOOK FOR 1944-45 AND LATER YEARS