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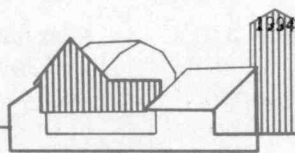
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### Generic "PIK" certificates

Generic "payment-in-kind" (PIK) certificates have been an important feature of the federal government's farm price support programs since the passage of the Food Security Act of 1985. USDA figures indicate that some \$22.7 billion in generic certificates were issued from April of 1986 through May of this year. At times, the certificates offered farmers unique benefits that could not have been duplicated with an equivalent payment in cash. In addition, the certificates increased the amount of grain available in market channels by lowering farmers incentives to forfeit on CCC loans and by aiding the transfer of CCC-held grain into the hands of users.

Generic certificates represent a claim on assets of the Commodity Credit Corporation (CCC). Each certificate carries a stated face value and expires eight months after the month of issue. They are issued at the discretion of the Secretary of Agriculture in lieu of cash payments the government would otherwise make to farm program participants or to merchants of agricultural products. About a tenth of the certificates issued since April of 1986 have been to merchants of agricultural products, mostly through the Export Enhancement Program. The bulk of the certificates have been issued to farmers, including some \$18.2 for deficiency and diversion payments to participants in grain and cotton price support programs and \$1.2 billion for annual rental payments on land enrolled in the 10-year Conservation Reserve Program. Although the ratio of certificate payments to cash payments is now declining, certificates have accounted for about half of all direct government payments to farmers the past three calendar years.

Certificates may be used in several ways. They can be sold for cash to others who might want to use certificates to acquire commodities controlled by the CCC. Also, farmers who are first owners can redeem certificates for cash at face value from the CCC during the final three months before expiration. The cash redemption value falls to 85 percent of face value during the first six months after expiration, 50 percent of face value during the next 12 months, and zero thereafter. Although more common in recent months, only about 2 percent of the certificate redemptions since April of 1986 have been for cash. Initially, other redemption options offered greater benefits than cash redemption.

As such, certificate holders were much more inclined to exercise the other redemption options or to sell their certificates at a premium to others.

The most popular redemption options permit the exchange of certificates for CCC-controlled commodities. Since the certificates are generic, they can be used in exchange for any commodity under loan with, or held outright by, the CCC at an exchange rate that closely approximates the market price of the commodity. Merchants and others can exchange certificates for commodities owned outright by the CCC. These exchanges take place through acceptable bids submitted at weekly CCC wheat auctions or through acquisitions from periodic catalogs published specifically for certificate exchanges. Farmers can also use certificates to repay CCC loans, which—in effect—represents an exchange of certificates for the commodity they pledged as collateral for the loan. This producer-exchange option is available at any time prior to maturity for all types of CCC loans, including loans under the Farmer-Owned Reserve Loan Program.

So far, about \$21.8 billion in generic certificates have been redeemed in these two types of commodity exchanges. Of that, about 70 percent has been exchanged for commodities under CCC loan, with the remainder used to acquire CCC-held stocks. Nearly three-fourths of the exchanges have been for corn and 17 percent have been for wheat. Of the roughly 9.1 billion bushels of corn acquired by generic certificates, about 7.5 billion bushels were acquired in exchange for CCC loan repayments while the remainder were acquired from CCC inventory. About 46 percent of the 1.5 billion bushels of wheat acquired through certificate exchanges represented an exchange for producer CCC loans while the remainder represented an exchange for CCC-held stocks of wheat.

Under certain conditions, the commodity exchange options offered benefits that were greater than the face value of the certificates used in an exchange. These advantages culminated in considerable premiums on open market sales of certificates in 1986 and 1987. But with the 1988 drought-induced surge in commodity prices, the premiums have evaporated in recent months. One advantage arose because certificate loan exchanges (repayments) are based solely on the so-called "posted county price" (PCP) which tends to closely track the market price of the commodity.

Alternatively, when a farmer uses cash to repay a CCC loan and reacquire the supporting commodity collateral, the repayment rate is equal to the loan support price plus the interest charge per bushel that accumulated while the loan was outstanding. As such, when the market price (and thus the PCP) of the commodity is below the loan support price, a certificate with a given face value will payoff more of the CCC loan (i.e. acquire more bushels of the commodity under loan) than will a comparable amount of cash. As has been the case in recent months, this advantage of certificates declines as the market price (and thus the PCP) moves above the loan support price. But in general, when the PCP exceeds the support price by less than the accumulated interest charge per bushel, there is an advantage of repaying CCC loans with certificates rather than cash.

Farmers also found that using certificate exchanges for loan repayments sometimes offered unique opportunities for cutting storage costs on the commodity held as collateral for the CCC loan. This was particularly true when market prices were expected to remain below the cash loan repayment rate throughout the life of the loan. When CCC loans mature without repayment, the collateral is transferred to CCC's outright ownership in full payment of the defaulted loan. But in the interim, the farmer is responsible for the storage charges on the collateral.

To illustrate the storage-saving benefits under conditions more applicable to late 1987, assume a farmer holding a certificate with a face value of \$175 put 100 bushels of corn under a 9-month loan at the loan support price of \$1.82 per bushel. Also, assume that storage charges are 3 cents a bushel per month; that both the PCP and the market price on the day the loan was taken out were \$1.75 per bushel; and that the market price during the life of the loan was not expected to exceed the support price. A farmer that chose to redeem the certificate for cash and default on the loan after 9 months would have generated \$330 in cash receipts (\$182 from the loan proceeds plus \$175 from the cash redemption of the certificate, less \$27 in storage charges). Alternatively, the farmer could have avoided the storage charges and generated \$357 in cash receipts by using the certificate to repay the loan on the same day the loan was taken out and immediately selling the grain. Under this option, the farmer also keeps the cash proceeds of the loan as well as the \$175 received from selling the corn. By eliminating the storage charge, the certificate was worth \$202 when used to repay the loan (reacquire the loan collateral) as opposed to \$175 in a cash redemption. Under the low market price conditions that prevailed in 1986 and 1987, this aspect of certificate exchanges for loans substantially reduced the amount grain that was forfeited to CCC ownership.

Merchants also found that certificate exchanges for CCC-owned commodities provided some advantages over cash acquisitions. Statutes preclude cash sales of CCC-owned commodities at prices below specified release levels. Since market prices, even in recent months, have consistently been below the required release level, CCC-owned commodities would have been isolated from available market supplies had merchants not had the option to acquire those commodities with certificates. With certificates, merchants could acquire CCC stocks at the PCP, plus a small handling charge. In general, holding certificates was less costly than holding the commodities needed to sustain pipeline flows. And in some cases, the CCC stocks offered locational advantages. Thus some merchants found that the handling charge associated with a certificate exchange for CCC stocks was less than the handling and transportation costs associated with purchases in normal market channels.

Gary L. Benjamin

### **Milk production**

Milk production this year is forecast to exceed last year's record output. USDA analysts point toward production of more than 148 billion pounds of milk this year, a 2 percent increase from the 1988 record. Commercial disappearance of milk is expected to show a similar gain, contributing to a slight drop in net removals of manufactured dairy products from a year ago.

Milk production in the twenty-one major producing states has held above year-ago levels through the first five months of the year. Monthly survey data from these states, which account for approximately 85 percent of the nation's output, show a slight downtrend in the margin of year-to-year gains. Milk production in February was virtually unchanged from a year ago, despite one less production day this year. After adjusting for that difference, February milk production was up more than 3.6 percent from last year. Since then, however, the increase narrowed to less than 2 percent during the subsequent two month period and to a slight increase of less than 1 percent in May. For the five month period as a whole, milk production has risen 1.2 percent from the same months last year to more than 53 billion pounds in the twenty-one major producing states.

The gain in milk production recorded during the first five months of the year is attributable to a substantial increase in output per cow more than offsetting continued declines in the size of the dairy herd. Output per cow in the twenty-one major producing states has



held at 2 to 3 percent above year-ago levels through May. The increases have occurred despite a sustained downturn in the milk-feed price ratio, a traditional indicator of the profitability in milk production, that has limited the rate of growth in concentrate feeding. However, the consolidation in the industry over the last few years has contributed to improved productivity. In addition, milk prices have remained quite strong during the early months of 1989, relieving some of the pressure to curtail concentrate feeding due to high costs. Milk cow numbers in the twenty-one major producing states have registered year-to-year declines each month since mid 1985. Through the first five months of 1989 the number of dairy cows in these states has continued to trend lower, holding consistently 1 percent below a year-ago throughout the period. Continued cost pressures on some producers will likely lead to further declines in dairy cow numbers during the remainder of this year.

Milk production in the five states of the Seventh Federal Reserve District exhibited a considerably different trend from the other major producing states. During the first five months of 1989, milk output in the District states was down .4 percent from the same period last year. Milk production in Wisconsin, which is the nation's leading producing state and accounts for about two-thirds of District output, recorded a 1.6 percent year-to-year decline. Illinois dairy farms showed a similar decline in output, while milk production in Michigan was virtually unchanged from the first five months of 1988. In contrast, milk output in Indiana and Iowa has remained consistently above year-ago levels through May, with year-to-year gains of 2.7 and 6.3 percent, respectively, over the five month period. Milk cow numbers were down in all of the District states except Iowa, where the dairy herd at the end of May was unchanged from the year-earlier level. Output per cow, in contrast, was up from a year ago in four of the states and unchanged in Wisconsin.

Commercial disappearance of milk is expected to increase again this year, continuing the trend that has characterized the 1980s. Through the first four months of 1989, commercial disappearance is just slightly above the year-earlier level, but current projections suggest that use will increase substantially during the

remainder of the year to boost the annual total about 1.8 percent above 1988.

Net removals of manufactured dairy products from the market by the Commodity Credit Corporation are forecast to decline slightly this year. However, through the early months of 1989, net removals are above last year's level. At almost 5.6 billion pounds through April net removals are 2.7 percent higher than the comparable period a year earlier. The increase is attributable to a sharp rise in removals during March and April following year-to-year declines during the first two months of the year. Current USDA projections point to CCC net removals of about 8.5 billion pounds, down about 4.5 percent from last year. At that level, net removals of manufactured dairy products would be equivalent to almost 6 percent of projected 1989 milk production.

Milk prices have declined seasonally through the first five months of the year, with the May average price for all milk sold to plants about 9 percent below the average price that prevailed in January. However, compared to a year earlier milk prices have held well above 1988 levels throughout the period. At an average of \$12.74 per hundredweight, milk prices during the five months ending in May averaged almost 7 percent above last year. The current USDA forecast for all of 1989 places milk prices in a range of \$12.60 to \$12.90 per hundredweight compared to \$12.21 per hundredweight average for all of 1988.

Peter J. Heffernan

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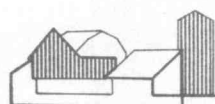
## Selected Agricultural Economic Indicators

			Percent change from		
	Latest period	Value	Prior period	Year ago	Two years ago
<b>Prices received by farmers (1977=100)</b>					
Crops (1977=100)	June	146	-2.0	5	12
Corn (\$per bu.)	June	137	-2.8	6	26
Oats (\$per bu.)	June	2.46	-4.7	2	46
Soybeans (\$per bu.)	June	1.84	-14.0	-30	21
Wheat (\$per bu.)	June	7.00	-2.9	-14	31
	June	3.78	-5.7	12	55
<b>Livestock and products (1977=100)</b>					
Barrows and gilts (\$per cwt.)	June	155	-0.6	5	4
Steers and heifers (\$per cwt.)	June	45.20	6.1	-7	-26
Milk (\$per cwt.)	June	72.90	-1.5	4	8
Eggs (¢per doz.)	June	12.10	-0.8	7	2
	June	63.3	2.1	37	27
<b>Prices paid by farmers (1977=100)</b>					
Production items	April	177	1.1†	5	10
Feed	April	165	1.2†	6	12
Feeder livestock	April	140	-0.7†	25	39
Fuels and energy	April	185	-8.4†	-6	3
	April	185	11.4†	12	16
<b>Producer Prices (1982=100)</b>					
Agricultural machinery and equipment	May	114	1.1	6	8
Fertilizer materials	May	117	0.5	4	6
Agricultural chemicals	May	108	-1.5	11	21
	May	115	0.6	7	11
<b>Consumer prices (1982-84=100)</b>					
Food	May	124	0.6	5	9
	May	125	0.6	7	10
<b>Production or stocks</b>					
Corn stocks (mil. bu.)	June 1	3,419	N.A.	-41	-46
Soybean stocks (mil. bu.)	June 1	655	N.A.	41	-22
Beef production (bil. lbs.)	May	2.00	13.7	4	8
Pork production (bil. lbs.)	May	1.34	1.5	9	25
Milk production (bil. lbs.)††	May	11.1	3.0	0	1

N.A. Not applicable

†Prior period is three months earlier.

††21 selected states.



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