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Charles M. Cuskaden

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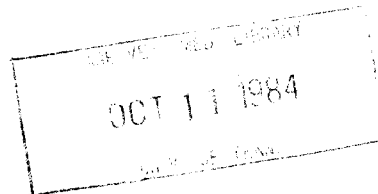


University of Tennessee Agricultural Experiment Station

Crop Production in Tennessee: 1974 and 1978

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Charles M. Cuskaden



**DEPARTMENT OF AGRICULTURAL
ECONOMICS AND
RURAL SOCIOLOGY**

CROP PRODUCTION IN TENNESSEE: 1974 AND 1978

by Charles M. Cuskaden*

Cash farm receipts from crop sales in Tennessee increased almost 50% between 1974 and 1978 (Table 1). And crop sales accounted for roughly half of total cash receipts from marketing farm products in Tennessee in both of those years. Four major crops--soybeans, tobacco, corn, and cotton--accounted for about two-thirds of the crop acreage harvested and over 82% of total cash farm receipts from crops in Tennessee in both 1974 and 1978.¹ Although some sizable changes occurred in the acreage, production, and value of those four major crops in Tennessee between 1974 and 1978, their relative importance to Tennessee agriculture changed very little during that period. Changes in the total value of crop production in Tennessee and the relative importance of soybeans, tobacco, corn, and cotton to Tennessee agriculture in 1974 and 1978 will be examined in this report using information from the 1978 U. S. Census of Agriculture for Tennessee.

Total Crop Production

Farmers in Tennessee apparently used agricultural land more intensively in 1978 than they did in 1974, since crops were harvested from a higher percentage of the land in farms in the state in 1978 than in 1974, even though the percentage of farms in Tennessee on which crops were harvested

*Associate Professor, Department of Agricultural Economics and Rural Sociology, the University of Tennessee, Knoxville.

¹Tables 1-5 and Tennessee Agricultural Statistics, Tennessee Crop Reporting Service, Annual Bulletins T-14 and T-16.

Table 1. Land in Farms, Number of Farms, Farm Product Sales, and Crop Production in Tennessee by Years

	1978	1974
Land in farms (acres)	13,150,498	13,103,224
Number of farms	97,036	93,659
Farm product sales (\$1,000)	1,419,535	933,168
All crops harvested		
Total acres	4,468,096	3,746,117
Farms reporting	80,868	77,885
Crop sales (\$1,000)	672,734	455,513
Percent land in harvested crops	34	29
Percent farms harvesting crops	83	83
Acres harvested per farm reporting	55	48
Sales per acre harvested (\$)	151	122
Sales per farm reporting (\$)	8,319	5,849

Source: 1978 U. S. Census of Agriculture.

was the same in 1978 as in 1974.² Increases in both acres of crops harvested per farm and crop sales per acre of crops harvested resulted in an increase in crop sales per farm in Tennessee of over 40% between 1974 and 1978.

Production Trends

More acres of soybeans were harvested in Tennessee in both 1974 and 1978 than were harvested of any of the other three crops analyzed in this report (Figure 1).³ Harvested soybean acreage in 1978 was over three times that of corn which ranked second in harvested acreage in that year. Four years earlier corn had ranked third, below cotton which had ranked second, based on crop acreage harvested.

Tobacco was harvested on more farms in Tennessee in both 1974 and 1978 than was either corn, soybeans, or cotton (Figure 2). Corn ranked second and soybeans ranked third in both 1974 and 1978, based on the number

²A comparison of total farm numbers and total land in farms in 1974 and 1978 will not be emphasized in this report. Census data for those items are not strictly comparable for 1974 and 1978 because: 1) the definition of a farm unit was changed between those two years, and 2) the mail survey, used exclusively in 1974, was supplemented in 1978 by a personal canvass of statistical area segment samples designed to give a more complete enumeration.

"Coverage evaluation studies for the 1974 Census indicated that 10.7 percent of all farms were not included in the census. Farms missed in the census were usually small and accounted for less than 3 percent of the total value of agricultural products sold and less than 6 percent of the land in farms" [1, p. VII]. Therefore, 1974 Census data with respect to tobacco production in Tennessee may be less accurate than that for soybeans, corn, and cotton since a higher percentage of tobacco producers operate small farms than do producers of the other three crops.

³See [2] for a discussion of crop production trends in Tennessee during the 1964-74 period.

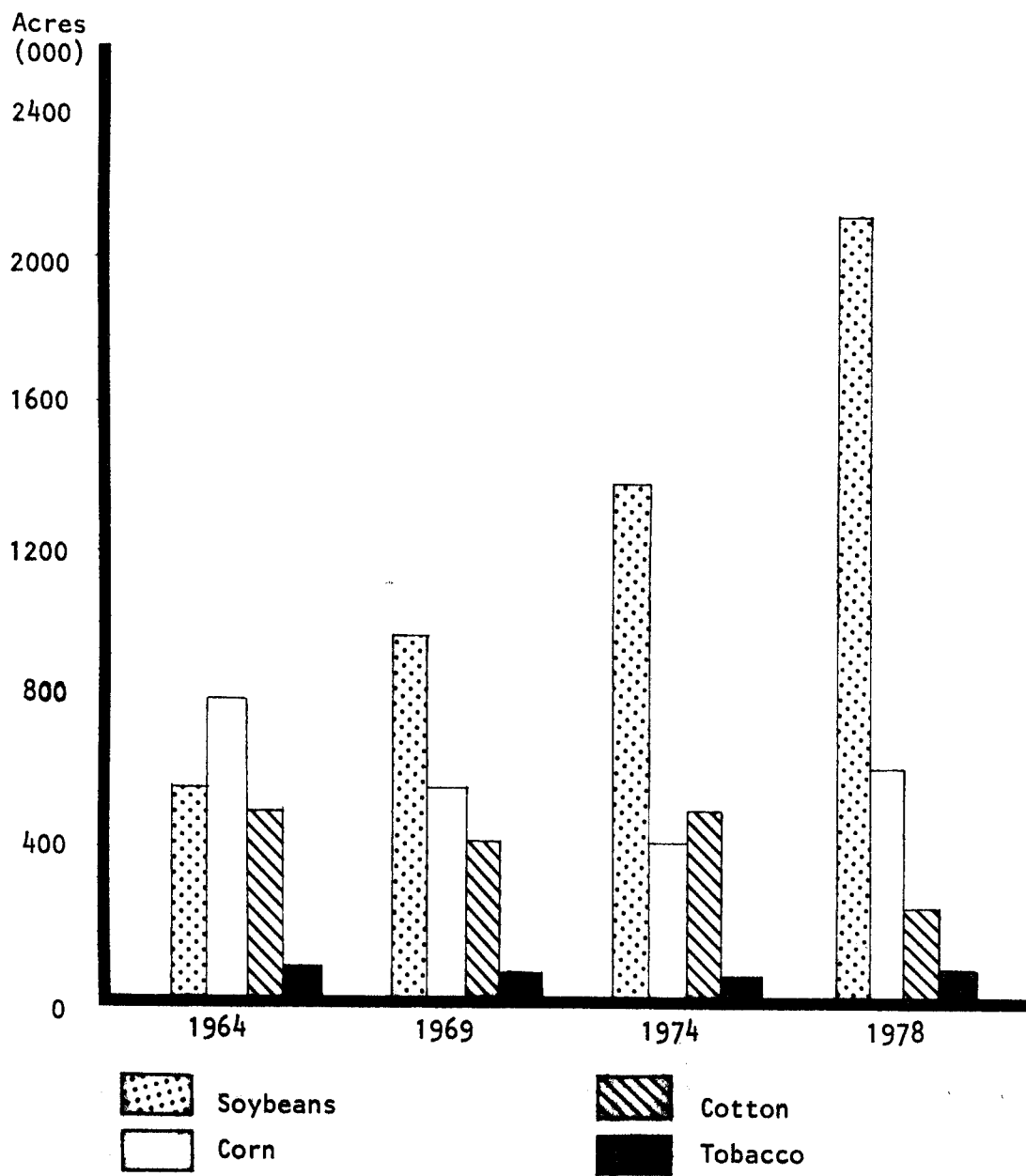


Figure 1. Crops Harvested In Tennessee by Years

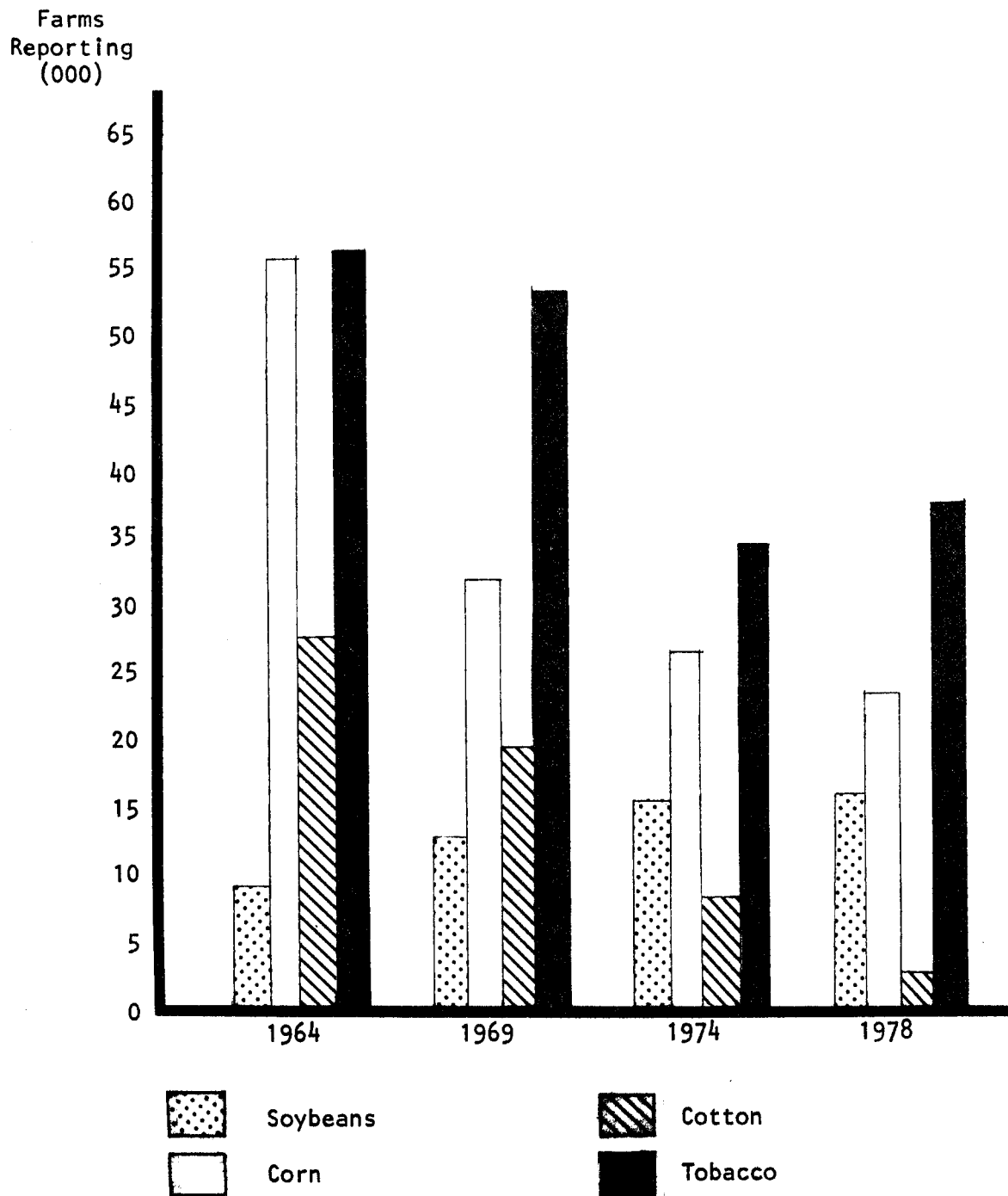


Figure 2. Crops Harvested in Tennessee by Years

of farms reporting harvesting tobacco, corn, soybeans, and cotton in those two years.

The value of soybeans harvested in Tennessee was about twice that of tobacco harvested in the state in both 1974 and 1978 (Figure 3). Corn and cotton ranked third and fourth, respectively, in Tennessee in both 1974 and 1978 based on the value of crops harvested.

Soybeans Harvested

Soybeans was the predominant crop produced in Tennessee in both 1974 and 1978, based on crop acreage harvested. That crop accounted for about 37% of the crop acreage harvested in the state in 1974. By 1978 soybeans were grown on almost half of the harvested crop acreage in Tennessee.

The acreage of soybeans harvested in Tennessee increased over 50% between 1974 and 1978, even though the number of farms on which soybeans were harvested increased less than 5% during that same period (Table 2). Soybean production expanded more rapidly than soybean acreage between 1974 and 1978 because production per acre increased slightly over 10% between those two years. However, the value of harvested soybeans did not increase in the same proportion as did soybean production between 1974 and 1978, due to a modest price decline during that period.

Soybean acreage per farm harvesting soybeans in Tennessee increased almost 45% between 1974 and 1978. This per farm acreage increase between 1974 and 1978, along with increased soybean yields during the same period, produced an increase of over 50% in the value of soybeans harvested per farm even though soybean prices declined slightly.

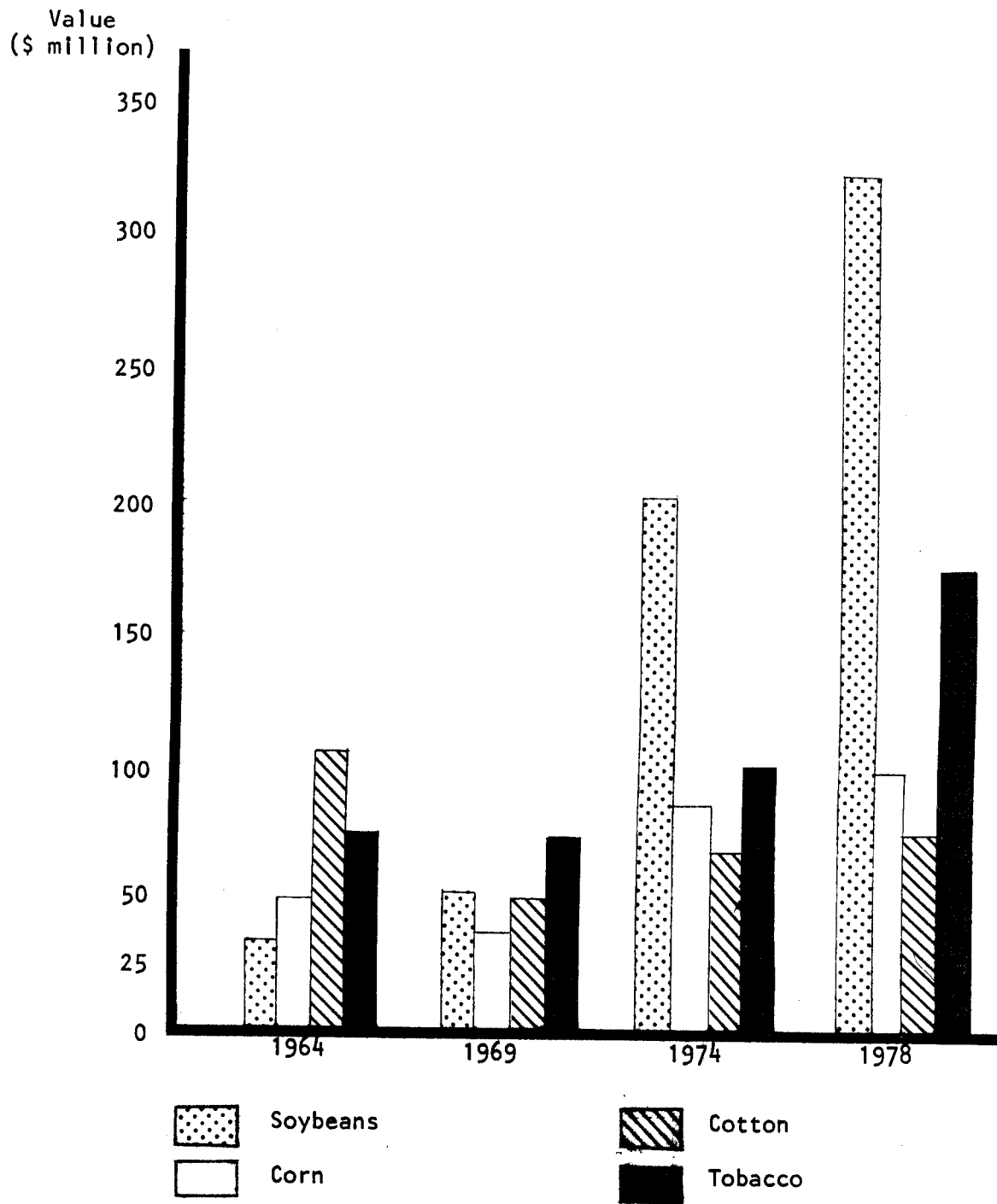


Figure 3. Crops Harvested in Tennessee by Years

Table 2. Soybeans Harvested in Tennessee by Years

	1978	1974
Acres harvested	2,111,414	1,401,705
Farms reporting	15,832	15,233
Value (\$1,000)	324,738	202,274
Production (bu.)	49,202,722	29,315,109
Acres per farm reporting	133.36	92.02
Production per acre (bu.)	23.30	20.91
Value per farm reporting (\$)	20,511.50	13,278.67
Value per bushel (\$)	6.60	6.90

Source: 1978 U. S. Census of Agriculture.

Cotton Harvested

Cotton acreage harvested in Tennessee in 1978 was less than half that harvested in 1974 (Table 3). Farms on which cotton was harvested in the state in 1978 numbered less than 30% of those on which cotton was harvested in 1974. The combined result of those two changes was almost a 60% increase in cotton acreage per farm harvesting the crop between 1974 and 1978.

The value of cotton harvested in Tennessee increased over 10% between 1974 and 1978 due to cotton yield and price increases, even though total cotton acreage harvested declined sharply during that period. And the value of cotton production per farm harvesting the crop was almost four times as large in 1978 as it had been in 1974 as a result of the combined effects of yield, price, and per farm acreage changes during that period.

Corn Grain Harvested

The acreage of corn harvested for grain in Tennessee in 1978 was almost 50% greater than that harvested in 1974 (Table 4). Corn grain production in the state increased over 65% between 1974 and 1978 as a result of yield increases of over 10% and the increased acreage of corn harvested during that period. However, the value of corn harvested for grain in Tennessee did not increase in the same proportion as corn production increased between 1974 and 1978 because corn prices declined during the period.

Corn was harvested for grain on fewer farms in Tennessee in 1978 than in 1974, even though the total acreage harvested in the state increased. Therefore, the percentage increase between 1974 and 1978 in the acreage of

Table 3. Cotton Harvested in Tennessee by Years

	1978	1974
Acres harvested	231,707	497,362
Farms reporting	2,388	8,119
Value (\$1,000)	76,453	67,953
Production (bales)	235,239	310,287
Acres per farm reporting	97.03	61.26
Production per acre (bales)	1.02	0.62
Value per farm reporting (\$)	32,015.49	8,369.63
Value per bale (\$)	325.00	219.00

Source: 1978 U. S. Census of Agriculture.

Table 4. Corn Grain Harvested in Tennessee by Years

	1978	1974
Acres harvested	626,659	496,926
Farms reporting	23,463	26,268
Value (\$1,000)	96,450	86,045
Production (bu.)	42,866,607	25,685,139
Acres per farm reporting	26.71	16.25
Production per acre (bu.)	68.40	60.16
Value per farm reporting (\$)	4,110.73	3,275.66
Value per bushel (\$)	2.25	3.35

Source: 1978 U. S. Census of Agriculture.

corn per farm on which the crop was harvested was greater than that for the total acreage harvested in the state. The value of corn grain per farm harvesting the crop increased over 25% between 1974 and 1978.

Tobacco Harvested

The acreage of tobacco harvested in Tennessee increased about 45% between 1974 and 1978 and the pounds of tobacco produced increased at about the same rate as acreage increased during that period, since yields remained relatively stable (Table 5). The value of tobacco harvested in the state increased at an even faster rate between 1974 and 1978 than did pounds of tobacco produced due to tobacco price increases of almost 20% during that period.

Tobacco was harvested on almost 10% more farms in 1978 than in 1974. Therefore, tobacco acreage per farm harvesting the crop in Tennessee increased at a slightly slower rate between 1974 and 1978 than did total tobacco acreage harvested. The combination of larger tobacco acreage harvested per farm and higher tobacco prices in 1978 than in 1974 resulted in just over a 60% increase in the value of tobacco per farm harvesting the crop between 1974 and 1978.

References

- [1] Bureau of the Census, U. S. Department of Commerce, 1978 Census of Agriculture, Vol. 1, Part 42, Tennessee.
- [2] Cuskaden, Charles M., "Crop Production in Tennessee: 1964-1974," Tennessee Farm and Home Science, Tennessee Agricultural Experiment Station Progress Report 104, October-December, 1977, pp. 43-45.

Table 5. Tobacco Harvested in Tennessee by Years

	1978	1974
Acres harvested	71,763	49,486
Farms reporting	37,753	34,419
Value (\$1,000)	174,809	99,583
Production (lbs.)	134,468,422	91,360,581
Acres per farm reporting	1.90	1.44
Production per acre (lbs.)	1,873.78	1,846.19
Value per farm reporting (\$)	4,630.33	2,893.26
Value per pound (\$)	1.30	1.09

Source: 1978 U. S. Census of Agriculture.