

Endeavour

Peanut Production Costs and Income in Oklahoma in 1942

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S U M M A R Y

Eastern and Central Oklahoma

In eastern Oklahoma, peanut growers in 1942 failed to cover expenses, including operator and family labor, if peanuts were sold at oil prices. However, those who sold at edible nut prices made a profit greater than that obtained from cotton.

Farmers using horse power required about 60 man hours of labor to grow and harvest an acre of peanuts under the most labor-consuming method of harvesting. This figure for cotton was 50 hours. With less labor consuming methods of harvesting, peanuts required less labor than cotton—46.7 hours.

Peak labor loads for peanuts and cotton occur at approximately the same time of year, but if threshers are available the peanut crop can be disposed of during a shorter period of time than cotton.

Southwestern Oklahoma

Southwestern peanut growers, though selling at oil prices, received sufficient returns from peanuts in 1942 to cover all expenses, including their own and family labor. However, cotton was considerably more profitable. At the edible nut price, peanut growers could have made more money than they did from cotton.

Farmers using tractors reported that it required less labor for peanuts than for cotton, since cotton yields were high and accordingly snapping required much labor. Few peanuts in Southwestern Oklahoma were stacked around poles. Windrowing by hand was the most usual method of harvesting, but many used a side delivery rake. Some combines were used successfully for threshing peanuts. Almost complete independence from hired labor in raising peanuts in Southwestern Oklahoma could be achieved by using a side delivery rake, threshing with a combine out of the windrow, and handling peanuts in bulk.

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Peanut Production Costs and Income in Oklahoma in 1942

By DESMOND L. W. ANKER and MELVIN S. SLUSHER*

The Oklahoma Agricultural Experiment Station, in cooperation with the U. S. Bureau of Agricultural Economics, began in the fall of 1942 to gather reports from farmers as to the various ways of handling peanuts and the relative cost of the different methods. These reports are summarized in this publication.

The information was obtained largely from 60 farmers interviewed in Choctaw, Bryan and Okfuskee counties, and 30 interviewed in Jackson, Harmon and Greer counties. These counties were chosen as representative of the peanut-growing areas of eastern and central Oklahoma, and southwestern Oklahoma, respectively.

EASTERN AND CENTRAL OKLAHOMA

Comparative Income from Peanuts and Cotton

In general, farmers who sold peanuts at the oil price in 1942 failed to receive returns sufficient to cover their costs, including a charge for their own labor, if they used the most labor consuming method of harvesting (Table I). Assuming an average yield of 20 bushels per acre and labor rates shown under Table I, farmers who stacked peanuts around poles failed by 47 cents per acre to recover their expenses. Methods of harvesting using less labor resulted in net gains to the operator (Tables II and III). However, cotton at a price of 17 cents per pound and a yield of 150 pounds of lint per acre was more profitable than peanuts at oil prices, even with the low labor cost methods of harvesting. This situation was completely reversed when peanuts were sold at edible nut prices; and even with the most expensive method of harvesting, peanuts returned more per acre than cotton.

The above discussion is based on average yields and prices for 1942. To help make comparisons under other conditions, Table IV shows net returns per acre for cotton and peanuts

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Table I.—Comparative per Acre Returns and Expenses for
Peanuts and Cotton; Eastern Oklahoma, 1942.
(Farms Using Horse Power; Peanuts
Stacked Around Poles.)

	Peanuts		Cotton
Price ¹	\$ 1.26	\$ 1.95	\$.17
Yield per Acre	20 bu.	20 bu.	150 lbs.
Gross cash value ²	\$29.70	\$43.50	\$31.17
Pre-harvest expenses			
Cash:			
Seed	\$ 2.60	\$ 3.50	\$ 1.00
Non-cash:			
Man labor	5.30	5.30	5.78
Horse expense	3.90	3.90	4.26
Total pre-harvest expense	11.80	12.70	11.04
Harvest expense			
Cash:			
Threshing	\$ 2.60	\$ 2.60	
Baling	1.50	1.50	
Sacks	2.00	2.00	
Ginning, B. & T.			\$ 1.73
Hauling	.80	.80	
Non-cash			
Man labor	10.26	10.26	6.78
Horse expense	1.21	1.21	.20
Total harvest expense	18.37	18.37	8.71
Total expenses	\$30.17	\$31.07	\$19.75
Cash			
Non-cash	9.50	10.40	2.73
	20.67	20.67	17.02
Returns over cash expenses	20.20	33.10	28.44
Returns to land, machinery, and management	-.47	12.43	11.42

¹ Average seasonal price in Oklahoma during 1942. The two prices for peanuts represent the price for excess and edible nuts respectively. The latter price (\$1.95) is expected to be the price at which all peanuts will be sold in 1943.

² Includes for peanuts .45 tons of hay at \$10.00 per ton, and for cotton 270 pounds of cottonseed at \$42.00 per ton.

The following charges were used in calculating expenses:

ITEMS	RATE (Dollars)	UNIT	ITEM	RATE (Dollars)	UNIT
Seed:			Bagging and Ties	1.84	bale
Quota	2.00	bu.	Hauling peanuts	.04	bu.
Excess	1.50	bu.	Labor:		
Threshing	.13	bu.	Harvest	.30	hour
Baling	.10	bale	Cotton-picking	1.45	cwt.
Sacks	.20	each	Other	.20	hour
Ginning	.2625	cwt.	Horse	.125	hour
			Team-Wagon	.20	hour

under varying yield and price conditions, assuming peanuts are stacked around poles. This table can be used to figure out the probable income from cotton and from peanuts if the probable yields of the two crops can be estimated. For instance, peanuts yielding 25 bushels to the acre will return \$20.14 per acre if the price is at \$1.95 a bushel, the price at which peanuts will probably be set in 1943. With cotton at 18 cents, the land must yield 200 pounds of lint per acre before cotton becomes more profitable than peanuts, even when the most expensive method of harvesting peanuts is used. In using this table as a guide for planning crops, adjustments should be made to allow for differences in returns using different methods of harvesting. (See Tables II and III.)

Labor Requirements*

Peanuts required a little less labor prior to harvest than cotton, according to the reports of farmers interviewed. (Table V.) Cotton was usually cultivated once more than peanuts and slightly more time was required in hoeing and chopping. There was probably a tendency in 1942 for farmers to work their peanuts somewhat less than is necessary to obtain the best results. If handled correctly, peanut cultivation and hoeing should require at least as much time as cotton. When peanuts are stacked around poles, harvesting requires more labor per acre than cotton picking; but it takes about as long to windrow and thresh peanuts as it does to pick cotton. Thus total labor requirements for peanuts are either greater or less than those for cotton, depending on how peanuts are harvested.

Farmers reported that it usually requires 26.5 man hours per acre to handle peanuts up to harvesting (Table V). Six and five-tenths man hours were required for seed bed preparation, 1.8 man hours for planting, and 8.2 man hours for cultivation. This latter figure includes harrowing once, plowing three times and laying by. It was found that 10 man hours were required for hoeing peanuts, assuming that usually the whole crop needed to be gone over one and one-half times. Digging peanuts was usually performed in 2.2 man hours per acre and threshing and baling in about 7 man hours per acre (assuming a yield of 20 bushels per acre). This latter figure includes the labor performed in hauling the vines to the thresher, pitching, sacking the nuts, and hauling the nuts

* The discussion is chiefly in terms of man hours required with horse-drawn equipment, since relatively few tractors are used in eastern and central Oklahoma. However, figures for tractor power are shown in Table VI.

Table II.—Summary of per Acre Returns and Expenses, Peanuts and Cotton; Eastern Oklahoma, 1942 (Farms Using Horse Power).

(Dollars per acre; yields as in Table I.)

	PEANUTS				COTTON at 17¢ per lb.
	At \$1.26 per Bu.		At \$1.95 per Bu.		
	Shaken and Stacked	Shaken and Windrowed	Shaken and Stacked	Shaken and Windrowed	
Gross cash value	\$29.70	\$29.70	\$43.50	\$43.50	\$31.17
Total expenses	30.17	25.97	31.07	26.87	19.75
Preharvest	11.80	11.80	12.70	12.70	11.04
Harvest	18.37	14.17	18.37	14.17	8.71
Total cash expenses	9.50	9.50	10.40	10.40	2.73
Returns over cash expenses	20.20	20.20	33.10	33.10	28.44
Returns to land, machinery, and management	-.47	3.73	12.43	13.63	11.42

and hay to the barn for storage. The figure does not include men furnished by the contractor—2 at the thresher and 3 at the baler.

Shaking peanuts and stacking around poles usually required about 25 man-hours per acre with a 20 bushel yield. This figure includes time spent in cutting the poles, placing them in the ground and attaching the cross pieces, and in handling the vines. Farmers reported that about 11 man

Table III.—Summary of per Acre Returns and Expenses, Peanuts and Cotton; Eastern Oklahoma, 1942 (Farms Using Tractor Power).

(Dollars per acre; yields as in Table I.)

	PEANUTS						COTTON at 17¢ per lb.
	At \$1.26 per Bushel			At \$1.95 per Bushel			
	Shaken and Stacked	Shaken and Wind- rowed	Raked with Side De- livery	Shaken and Stacked	Shaken and Wind- rowed	Raked with Side De- livery	
Gross cash value	\$29.70	\$29.70	\$29.70	\$43.50	\$43.50	\$43.50	\$31.17
Total expenses	28.44	24.24	21.48	29.34	25.14	22.38	18.42
Preharvest	10.59	10.59	10.59	11.49	11.49	11.49	9.71
Harvest	17.85	13.65	10.89	17.85	13.65	10.89	8.71
Total cash expenses	9.50	9.50	9.50	10.40	10.40	10.40	2.73
Returns over cash expenses	20.20	20.20	20.20	33.10	33.10	33.10	28.44
Returns to land, machinery, and management	1.26	5.46	8.22	14.16	18.36	21.12	12.75

Table IV.—Estimated per Acre Net Returns for Peanuts and Cotton, at Varying Yields and Prices, Eastern Oklahoma.

(Dollars per Acre.)

Peanuts¹

	IF PRICE PER BUSHEL IS:			
	\$1.20	\$1.50	\$1.95	\$2.10
If yield is:				
15 bu. per A.	\$-3.98	\$.52	\$ 7.27	\$ 9.52
20 bu. per A.	-1.29	4.71	12.43	16.71
25 bu. per A.	1.39	8.89	20.14	23.89
30 bu. per A.	4.40	13.40	26.90	31.46
35 bu. per A.	7.74	18.24	33.99	39.24

Cotton²

	IF PRICE PER POUND IS:			
	14c	16c	18c	20c
If yield is:				
100 lbs. per A.	\$-.62	\$ 1.83	\$ 4.28	\$ 6.73
150 lbs. per A.	4.82	8.49	12.17	15.85
200 lbs. per A.	10.26	15.16	20.06	24.96
250 lbs. per A.	15.70	21.83	27.95	34.07

¹ Assumes horse power, with peanuts shaken and stacked around poles; value of hay included.

² Assumes horse power, with all cotton picked; value of cottonseed included.

Table V.—Usual Labor Requirements on Peanuts and Cotton; Eastern Oklahoma, 1942 (Using Horse Power).

(Hours per Acre.)

	PEANUTS— 20-bushel Yield				COTTON— 150-lbs. Yield	
	Shaken and stacked		Shaken and windrowed		Man Hours	Horse Hours
	Man Hours	Horse Hours	Man Hours	Horse Hours		
Pre-harvest:						
Preparation	6.5	13.0	6.5	13.0	7.0	14.0
Planting	1.8	1.8	1.8	1.8	1.7	1.7
Cultivation	8.2	16.4	8.2	16.4	9.2	18.4
Hoeing	10.0	—	10.0	—	11.0	—
Total pre-harvest	26.5	31.2	26.5	31.2	28.9	34.1
Harvest:						
Digging	2.2	4.4	2.2	4.4	—	—
Harvesting	25.0	—	11.0	—	20.3	—
Threshing and Baling ³	7.0	6.5	7.0	6.5	—	—
Hauling	—	—	—	—	—	—
Total harvest	34.2	10.9	20.2	10.9	21.1	1.6
Total labor req'mts	60.7	42.1	46.7	42.1	50.0	35.7

³ Includes hauling nuts and hay to barn or other farm storage but does not include the labor of two threshermen and the baling crew furnished by the contractor.

hours per acre were needed to shake the vines and throw them in the windrow. Thus, when the former method of handling is employed it requires 34.2 man hours to harvest an acre of peanuts, or 60.7 hours for all operations. The shorter method takes 20.2 hours per acre for harvesting and 46.7 hours per acre altogether. Since many farmers hired their peanuts hauled to market, this operation has not been included in calculating labor requirements but has been charged as an expense in Table I.

A few tractor farmers in eastern Oklahoma used a side delivery rake for harvesting peanuts. It was reported that raking an acre of peanuts required about .8 man hours. (Table VI). In most cases the vines had to be turned with forks prior to threshing and this, together with cleaning up the ends of the field after raking, usually required one hour per acre, bringing the total for the raking method to 1.8 hours per acre.

The operations performed in producing peanuts are carried out at approximately the same time as in raising cotton. Peanuts are usually planted in May and are cultivated and hoed in June and July. The nuts usually mature from about the middle of September to the middle or end of October, the harvesting operations being performed accordingly. Although a few growers in 1942 did get their peanuts harvested before cotton picking, the two crops will usually be gathered at about the same time, requiring peak labor loads in October and November. However, it is possible to have the harvesting operation last over a shorter period of time with peanuts than for cotton. Even when peanuts are stacked around poles, the operation for 15 acres can be performed by a crew of 5 in 10 days at the most. Threshing will take not more than two days with a full crew and may be done at any convenient time after the nuts are cured, provided a thresher is available. With windrowing, it is possible to have the crop threshed within two weeks after plowing up the vines, provided that it is possible to hire or exchange labor in such a manner as to have full crews. Cotton picking usually extends at intervals over a period of from 8 to 12 weeks. On the other hand, the advantage cited above for peanuts holds true only if the farmer uses only his own or hired labor. If he exchanges labor with neighbors, as is usually done, he will have to help his neighbors harvest their crop.

Table VI.—Labor Requirements on Peanuts and Cotton, Eastern Oklahoma, 1942 (Using Tractor Power).

	PEANUTS—20-BUSHEL YIELD									COTTON—150-lb. Yield		
	Shaken and Stacked			Shaken and Windrowed			Raked with Side-Delivery Rake			Man Hours	Tractor Hours	Horse Hours
	Man Hours	Tractor Hours	Horse Hours	Man Hours	Tractor Hours	Horse Hours	Man Hours	Tractor Hours	Horse Hours			
Pre-harvest:												
Preparation	2.9	2.9	---	2.9	2.9	---	2.9	2.9	---	2.9	2.9	---
Planting	.5	.5	---	.5	.5	---	.5	.5	---	.5	.5	---
Cultivating	2.3	2.3	---	2.3	2.3	---	2.3	2.3	---	2.8	2.8	---
Hoeing	10.0	---	---	10.0	---	---	10.0	---	---	11.0	---	---
Total pre-harvest	15.7	5.7	---	15.7	5.7	---	15.7	5.7	---	17.2	6.2	---
Harvest:												
Digging	.6	.6	---	.6	.6	---	.6	.6	---	---	---	---
Harvesting ¹	25.0	---	---	11.0	---	---	1.8	.8	---	20.3	---	---
Threshing												
and Baling	7.0	---	6.5	7.0	---	6.5	7.0	---	6.5	---	---	---
Hauling to												
Market	---	---	---	---	---	---	---	---	---	.8	---	1.6
Total Harvest	32.6	.6	6.5	18.6	.6	6.5	9.4	1.4	6.5	21.1	---	1.6
Total labor Req'mts	48.3	6.3	6.5	34.3	6.3	6.5	25.1	7.1	6.5	38.3	6.2	1.6

¹ Includes hauling nuts and hay to barn or other farm storage but does not include the labor of two threshermen and the baling crew furnished by the contractor.

Variations in Production Methods

Farmers reported that peanuts were generally hoed at least once by hand in addition to the usual row cultivation, and it was often necessary to hoe part of the crop a second time if the grass was bad. Some farmers reported that they were able to keep their fields sufficiently clean with only harrowing and cultivation, but hoeing is generally recommended.

The most usual method of harvesting on the eastern side of the State was to pick up the vines by hand, shake the dirt off, and stack them around poles with the nuts on the inside. The peanuts are left on the poles from four to six weeks to cure before threshing. Some farmers, in order to save labor during threshing, hauled the vines to one place for stacking. Stacked peanuts may be left in the field for several weeks with little danger to either the hay or the nuts—a definite advantage when it may be necessary to wait a long time before a thresher is available. This method requires a considerable amount of labor however.

A method requiring less labor was reported by some of the farmers interviewed. They picked up the vines by hand, shook the dirt off and placed the vines in the windrow, usually four rows together. Best results were obtained by placing the vines so that the nuts faced up. In this position the nuts receive the benefit of the sun and also are cleaned well if it should rain. The peanuts were ready to thresh in ten to fifteen days in dry weather. The danger of this method is that a period of heavy rains while the peanuts are in the field will most likely damage the hay considerably and may damage the nuts too. Some farmers avoided this risk by hauling the vines to a barn, piling them in loosely, or by stacking the vines in a long narrow rick.

For threshing the farmer has to supply a threshing crew consisting of about seven hands (exclusive of the two or three men furnished by the thresher) and five men with wagons and teams. The usual charge in 1942 was 13 cents per bushel plus the labor furnished.

Most farmers who had their hay in good condition last year baled it at the time they threshed. Charges for the baler, crew and wire were 10 cents per bale. In some cases the hay was stacked after threshing and baled later. If the hay was not in good shape it was left in the field after threshing for cattle to feed on.

After threshing, the peanuts and hay were usually hauled to the barn for storage until the nuts were ready for market. Buyers do not accept nuts unless they are thoroughly dry.

SOUTHWESTERN OKLAHOMA

Comparative Income From Peanuts, Cotton, and Grain Sorghums

Table VII shows comparative returns from peanuts and the major competing crops, cotton and grain sorghum, based on farmer experience in 1942.

In 1942, cotton returned \$23.09 per acre after all expenses, including operator and family labor, were deducted. Under such conditions peanuts could not compete at \$1.26 per bushel. Peanuts at \$1.95 per bushel would have been more profitable than cotton.

Table VIII shows comparative returns of peanuts, cotton, and grain sorghums estimated for varying yields and prices.⁷ Expenses have been assumed to remain at the same rate per unit, but have been adjusted to the varying yield figure. This table reveals that, with the price of peanuts at \$1.20 per bushel, peanuts would have to yield better than 35 bushels per acre to compete with cotton yielding only 150 pounds of lint at 17 cents per pound. On the other hand, if peanuts are at \$1.95 per bushel, a 25-bushel yield will return as much as cotton with a 250-pound yield at 17 cents per pound, and will return more with a 15-bushel yield than cotton with a 150-pound yield. Under such conditions grain sorghums would need to yield a ton and a quarter of grain to the acre and sell for \$1.50 per hundred pounds before they could complete.

In general it may be said that at a price of \$1.95 per bushel, peanuts will yield a higher return per acre than either cotton or grain sorghum on low yielding land.

Labor Requirements

All of the farmers interviewed used tractors in their farming operations and in this report figures are given only for tractor operations.

Preparation generally consisted only of listing and planting. Each usually required .5 man hours per acre (Table IX).

⁷ Grain sorghums are here treated as a cash crop. Sorghums produced for livestock feed might be another matter.

Table VII.—Comparative per Acre Returns and Expenses for Peanuts, Cotton and Grain Sorghums; South-western Oklahoma, 1942.

	Peanuts		Cotton	Grain Sorghum	
	25 bu. (1)	(2)	250 lbs.	1,000 lbs.	
Price	\$ 1.26	\$ 1.95	16¢	94¢ per 100 lbs.	
Gross cash value ¹	\$33.75	\$51.00	\$48.50	\$9.40	
Pre-harvest expenses					
Cash					
Seed	\$2.00		\$1.00	\$.20	
Non-cash					
Man labor	3.27		3.54	.96	
Tractor	2.89		3.23	2.72	
Total pre-harvest expense	8.16		7.77	3.88	
	Method of Harvesting		Method of Harvesting		
	Windrowed by hand	Raked		Headed	Combined
Harvest expense					
Cash					
Threshing	\$ 3.25	\$ 3.25	----	----	----
Sacks	2.50	2.50	----	----	----
Ginning, bagging and ties	----	----	----	----	----
Combine	----	----	----	----	\$ 3.00
Haul to market	1.00	1.00	\$3.62	----	----
Non-cash					
Man labor	8.80	4.95	13.25	\$ 2.50	----
Tractor	.51	1.19	.77	----	----
Horse	.85	.85	----	1.25	----
Total harvest expense	\$16.91	\$13.74	\$17.64	\$ 3.75	\$ 3.00
Total expenses	\$25.07	\$21.90	\$25.41	\$ 7.63	\$ 6.88
Cash	8.75	8.75	4.62	.20	3.20
Non-cash	16.32	13.15	20.79	7.43	3.68
Returns over cash expenses			43.88	9.20	6.20
	@ \$1.26	25.00			
	@ \$1.95	42.25			
Returns to land, machinery and management			23.09	1.77	2.52
	@ \$1.26	8.68			
	@ \$1.95	25.93			

¹ Includes 450 pounds of hay saved at \$10 per ton for peanuts and 425 pounds of cottonseed at \$40.00 per ton for cotton.

The following charges were used in calculating expenses:

Seed	\$1.50 per bu.	Labor:	
Threshing	13¢ per bu.	Harvest	50¢ per hour
Sacks	20¢ each	Cotton snapping	\$1.30 per cwt.
Ginning	28.9 per cwt.	Other	30¢ per hour
Bagging and ties	\$1.84 per bale	Horse	12.5¢ per hour
Hauling peanuts	4¢ per bu.	Wagon and Team	25¢ per hour
		Tractor	85¢ per hour

Farmers reported that total labor requirements for the usual four cultivations were 2.4 man hours, and for hoeing 7.5 man hours per acre, assuming that on an average peanuts were hoed one and one-half times. The hoeing figures for both peanuts and cotton are higher than normal because fields were unusually grassy in 1942 due to the wet growing season. Ten and nine-tenths man hours were required per acre for all operations on peanuts prior to harvest. This was a little less than was reported for cotton, which was given one more cultivation and some additional hoeing. There is reason to believe that peanut growers in 1942 did not work their peanuts sufficiently well.

Table VIII.—Estimated per Acre Net Returns for Peanuts, Cotton and Grain Sorghums, with Varying Yields and Prices; Southwestern Oklahoma, 1942.
(Dollars per Acre.)

		Peanuts ¹				
		IF PRICE PER BUSHEL IS:				
		\$1.20	\$1.50	\$1.95	\$2.10	
If yield is:						
15 bu. per A.	.94	5.44	12.84	14.44		
20 bu. per A.	3.41	9.41	19.36	21.41		
25 bu. per A.	5.88	13.38	25.93	28.38		
30 bu. per A.	8.35	17.35	32.40	35.35		
35 bu. per A.	10.82	21.32	38.92	42.32		
		Cotton ²				
		IF PRICE PER POUND IS:				
		14¢	16¢	17¢	18¢	20¢
If yield is:						
100 lbs. per A.	1.72	4.15	5.57	6.57	9.00	
150 lbs. per A.	6.47	10.10	12.24	13.74	17.38	
200 lbs. per A.	11.21	16.06	18.91	20.91	25.76	
250 lbs. per A.	15.96	23.09	25.58	28.08	34.14	
300 lbs. per A.	20.70	27.98	32.25	35.25	42.53	
		Grain Sorghum ³				
		IF PRICE PER HUNDRED POUNDS IS:				
		\$0.75	\$1.00	\$1.25	\$1.50	
If yield is:						
500 lbs. per A.	-2.01	-.76	.49	1.74		
1000 lbs. per A.	-.13	2.37	4.87	7.37		
1500 lbs. per A.	1.74	5.49	9.24	12.99		
2000 lbs. per A.	3.62	8.62	13.62	18.62		
2500 lbs. per A.	5.49	11.74	17.99	24.24		

¹ Assumes peanuts shaken and windrowed by hand; value of hay included.

² Value of cottonseed included; yields shown are pounds of lint.

³ Assumes hand harvesting.

Table IX.—Labor and Power Requirements per Acre in Producing Peanuts, Cotton and Grain Sorghums; Southwestern Oklahoma, 1943.
(Hours per Acre.)

	PEANUTS						COTTON			GRAIN SORGHUMS						
	Windrowed by Hand			Raked			Man	Tractor	Horse	Headed			Combined			
	Man	Tractor	Horse	Man	Tractor	Horse				Man	Tractor	Horse	Man	Tractor	Horse	
Pre-harvest																
Preparation	.5	.5	---	.5	.5	---	.5	.5	---	.5	.5	---	.5	.5	---	
Planting	.5	.5	---	.5	.5	---	.5	.5	---	.5	.5	---	.5	.5	---	
Cultivation	2.4	2.4	---	2.4	2.4	---	2.8	2.8	---	2.2	2.2	---	2.2	2.2	---	
Hoeing	7.5	---	---	7.5	---	---	8.0	---	---	---	---	---	---	---	---	
Total	10.9	3.4	---	10.9	3.4	---	11.8	3.3	---	3.2	3.2	---	3.2	3.2	---	
Harvest:																
Plow Up	.6	.6	---	.6	.6	---	---	---	---	---	---	---	---	---	---	---
Windrow	9.5	---	---	1.8 ¹	.8	---	---	---	---	---	---	---	---	---	---	---
Thresh	7.5 ²	---	6.4 ³	7.5 ²	---	6.4 ³	---	---	---	---	---	---	---	---	---	---
Snap	---	---	---	---	---	---	21.0	---	---	---	---	---	---	---	---	---
Harvest	---	---	---	---	---	---	---	---	---	---	5.0	10.0	---	---	---	---
Haul	---	---	---	---	---	---	---	1.8	.9	---	---	---	---	---	---	---
Total	17.6	.6	6.4	9.9	1.4	6.4	22.8	.9	---	5.0	---	10.0	---	---	---	---
Grand Total	28.5	4.0	6.4	20.8	4.8	6.4	34.6	4.7	---	8.2	3.2	10.0	3.2	3.2	---	---

¹ Includes cleaning up ends after raking and turning once with forks.

² Including 2 or 3 men furnished by contractor.

³ Wagons and teams.

Part of this was due to the scarcity of labor for hoeing peanuts when cotton had to be hoed, the result being that some farmers were unable to keep the grass out of their peanuts and consequently lost part of the crop. Grain sorghums require less labor prior to harvest than either peanuts or cotton, since hoeing is not necessary.

Digging peanuts out of the ground required usually .6 hours per acre. When peanuts were shaken by hand and piled into the windrow the operation was performed on an average in 9.5 man hours per acre with a 25-bushel yield. Threshing, including hauling the vines to the thresher and hauling the nuts to the barn for storage, usually required 7.5 man hours per acre, along with 6.4 horse hours for wagons and teams. Altogether, 17.6 man hours were needed to harvest an acre of peanuts. These labor requirements were considerably lowered if peanuts were raked with a side delivery rake. This took 1.8 hours, including time spent on cleaning up the ends of the field after raking and turning the vines with forks before threshing.

Harvesting grain sorghums needed much less labor than peanuts, even where the grain was harvested by hand; but cotton snapping was much more labor-consuming than peanuts in 1942. With a more normal yield, cotton snapping would require about as long as peanut harvesting when the latter crop is windrowed by hand, but when a side delivery rake is used peanuts will still be more economical of labor than cotton. And if peanuts are combined out of the windrow (see page 21) it is estimated that an acre of peanuts can be grown and harvested in only about 15 man hours.

Peanuts required attention throughout growing and harvesting at about the same time as did cotton. Peanuts were usually planted in May and cultivation and hoeing continued through July. They were usually not plowed up before October 1 and harvesting operations continued until the beginning of the year. Harvesting in 1942 was delayed on account of labor scarcity, both for shaking and threshing, and by the lack of sufficient threshers. With a less favorable year for cotton the labor problem would not be so severe, but the fact remains that most peanut growers will have to compete for labor with cotton growers. However, the requirements for labor in harvesting peanuts extend over a shorter period of time. Shaking 25 acres of peanuts will not take more than one full week with a crew of 5 workers. Ten days after shaking the peanuts may be threshed, which will not take longer than two half days. Thus the peanut crop can be disposed of within two weeks after digging. Cotton, on the other hand, will usually

need attention at intervals for 3 months. Grain sorghum can be handled more quickly and with smaller crews than either cotton or peanuts.

Variations in Production Methods

Farmers reported that peanuts were handled in much the same way as cotton. Peanut land was usually listed just before planting. Peanuts were usually planted with a two-row lister planter provided with regular peanut plates.

Many farmers found that early cultivations were best done with a go-devil or monitor with knives and hooks attached. Later cultivations were performed with usual row crop cultivators.

In addition to tractor cultivation, peanuts required hoeing by hand at least once and parts of some fields needed to be gone over a second time. Last year especially the Colorado grass was bad, and some farmers lost part of their crop because the grass got out of control.

Digging was usually done with a lister with the wings off or a cultivator with a blade attached (Figure 1).

In southwestern Oklahoma peanuts were seldom, if ever, stacked around poles. The weather is customarily sufficiently dry to permit the vines and nuts to cure on the ground. The most usual practice was to shake the dirt off the peanuts by hand and place the vines in the windrow, four rows together, with the nuts pointing up to subject the nuts to the heat of the sun and to keep them clean. At threshing time the vines were pitched into wagons or trailers and hauled to the thresher. Some farmers preferred to stack the peanuts in a long narrow rick until threshing time.

Farmers who had the equipment, or were able to rent or borrow it, used a side delivery rake to windrow peanuts, and this method proved successful in most cases. Some difficulty was experienced in deep sand when the wheels of the rake sank down deep. This could be overcome by using rubber wheels, if available, or attaching extra rims to make the wheels wider. Where the rake was used before the vines had a chance to dry out a little, the vines bunched and prevented proper shaking. If vines were too dry, many nuts were shaken off in the raking process. When operated successfully, the side delivery rake shook peanuts as well as was done with hand shaking, and was materially less labor-consuming. Usually the ends of the field

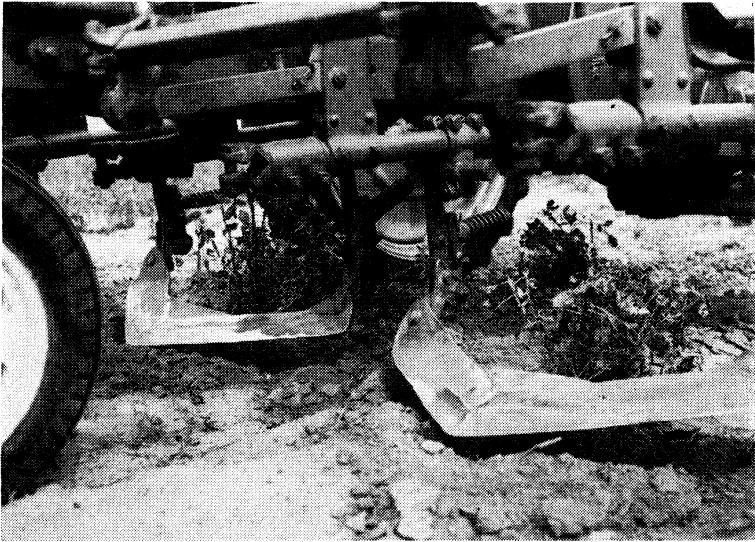


Figure 1.—Some Oklahoma farmers used devices like this to dig peanuts in 1942. The blades were made at home or by local blacksmiths, using sled knives. They are attached to cultivator foot pieces.

needed to be cleaned with a fork, and the vines needed to be turned with a fork a few hours before threshing to let the vines on the bottom of the pile dry. The one weakness of this method of handling peanuts is that in the operation some nuts may be shaken off the vines and leaves pulled from the stems.

Combines were adapted to threshing peanuts by making certain minor adjustments and adding a pick-up attachment to handle peanuts out of the windrow. Only one man was needed to drive the tractor, and one or at the most two to sack the nuts. The operators of combines in 1942 are working out a scheme of saving the hay. Reports from farmers and warehousemen indicate that on an oil grading basis the grade of combined peanuts was just as good as those threshed. There was a tendency for the combine to shell the nuts and crack some, but this does not reduce the grade of oil nuts.

Some of the persons interviewed pointed out that if peanuts could be handled loose it would save both sacking expense and the labor of two or three men in the threshing crews. It is estimated roughly that farmers' expenses would be reduced by more than three dollars an acre. Handling peanuts loose

would be particularly advantageous if combines were used more extensively in threshing. The main obstruction to bulk handling of peanuts appeared to be the fact that warehousing would be a more difficult task. With peanuts in sacks any well constructed empty building can be used as a warehouse. For bulk handling, an elevating device is necessary and cotton gins, cotton oil mills, and grain elevators would probably be the only establishments suitable for peanut storage. Other problems involved would be storage on the farm prior to marketing and the availability of tight wagons and trucks.

RENTAL AGREEMENTS FOR GROWING PEANUTS

Many inquiries have been directed to county agricultural workers and the Experiment Station regarding the proper share rental agreement with peanuts. It is evident that as yet no uniform customary rental agreement has come forth. Rather, the division is handled in different ways in different communities. In the older peanut area (in Bryan and Choctaw counties) one-third rent was common. Since peanuts have been raised as a cash crop, however, one-fourth is the more usual rent. There is a wide variation in the contribution made by the landlord, but most usually he pays one-fourth of the sacks, threshing and baling custom cost and hauling, and receives in return one-fourth of the nuts and hay.

To appraise the equitability of the one-fourth agreement in peanuts it may be assumed that the agreement is equitable in cotton and then compare returns to both parties for peanuts and cotton. Making such a test under the conditions assumed in Tables I and VII reveals the figures shown in Table X.

The tenant who sold at oil prices did not fare as well as he did with cotton, his returns being lower in ratio to the landlord's return than with cotton. His returns were insufficient to cover his labor costs in eastern Oklahoma, and just barely covered costs in the Southwest. All labor has been assumed performed by the operator for both peanuts and cotton; in actual practice most of it is hired. The reason for the lower ratio of returns is the fact that peanuts at \$1.26 per bushel are relatively lower than cotton at 17 cents per pound. If peanuts bring \$1.95 per bushel the tenant's share after deducting cash expenses is absolutely and, compared with the landlord's net return, relatively about as high as it is from cotton. In eastern Oklahoma the renter would have about the same balance left after meeting non-cash expenses as he has with cotton; while in the southwestern counties he would have a lit-

Table X.—Division of Receipts and Expenses Between Landlord and Tenant for Peanuts and Cotton.

	EASTERN OKLAHOMA			SOUTHWESTERN OKLAHOMA		
	Peanuts		Cotton	Peanuts		Cotton
Price per bushel	\$ 1.26	\$ 1.95	\$.17	\$ 1.26	\$ 1.95	\$.17
Total gross receipts	29.70	43.50	31.17	33.75	51.00	48.50
Landlord's share	7.42	10.88	7.79	8.44	12.75	12.13
Landlord's cash expense	1.72	1.72	.43	1.69	1.69	.91
Balance	5.70	9.16	7.36	6.75	11.06	11.22
Tenant's share	22.26	32.62	23.38	25.31	38.25	36.37
Tenant's cash expense	7.78	8.68	2.30	7.06	7.06	2.71
Balance	14.48	23.94	21.08	18.25	31.19	33.76
Tenant's non-cash expense	20.67 ¹	20.67 ¹	18.02	16.32 ²	16.32 ²	21.79

¹ Assumes peanuts stacked around poles.

² Assumes peanuts windrowed by hand.

tle more left. Thus both landlord and tenant fare about equally well with cotton as with peanuts at the higher price for the latter. It may be concluded that the division of returns and expenses mentioned above is as equitable for peanuts as it is for cotton.

Although this division of the crop suggests that the landlord receive one-fourth of both the nuts and the hay, other arrangements may be made concerning the hay. Some farmers reported that if the tenant kept all the hay he paid all the threshing, baling, sacking, and hauling expense. This is probably a fairly equitable arrangement if hay yields are in the neighborhood of three-fourths of a ton to the acre, but with hay yields at a half a ton to the acre or less, the value of the hay would not exceed the cost of threshing, baling and hauling only.