

**FARM MACHINERY
CUSTOM RATES
BY
CROP REPORTING DISTRICTS
IN TENNESSEE, 1973**

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FARM MACHINERY CUSTOM RATES BY CROP REPORTING DISTRICTS IN TENNESSEE, 1973

By Luther H. Keller and Robert M. Ray*

The purpose of this study is to make available information on current custom farm machinery rates for each of the six crop reporting districts in Tennessee (Figure 1). Machinery rates charged and/or paid by Tennessee farmers in 1973 are presented in this report by job, unit of charge and area of the state. Custom machinery work is defined as the hiring of men and machines to perform farm work.

The names of at least ten people per county who did custom farm work or hired custom farm work during the previous 12 months were solicited from each Tennessee County Extension Agent in May 1973. Lists were returned for 79 counties with a total of 790 names. These names were used as a sample list for a mail questionnaire survey and each was mailed a questionnaire and explanatory letter in July 1973.

Information was requested on rates paid or received for machinery custom work, types or size of machines used and the basis of payment. Respondents were asked to provide rates only for custom work whether they either did custom farm work or hired custom farm work. After 5 weeks, a second questionnaire was sent to those not replying to the first letter. A total of 379 usable replies were received in response to the two mailings. The number of questionnaires mailed and replies received by area crop reporting districts are shown in Table 1. For all areas combined the response rate was 48% and varied from 60% in Area II to 37% in Area III.

The highest, lowest and average custom rates reported are shown in Tables 2-7 for each area and for each job for which data were sufficient to provide reliable estimates. The reliability of each rate will increase with the number of reports for that particular job. Some of the variation in rates, especially hourly rates, is due to kind and size of equipment used. Because of the wide variety of machines used it was not possible to classify the information by machine size.

The content of the tables and the method of reporting vary from area to area. Cost of materials was not included in the rates except where specified. The prices reported in this study do not necessarily indicate the fairness of any given rate but simply indicate the rates now being charged or paid by those reporting. A "fair" rate could be either higher or lower than those shown.

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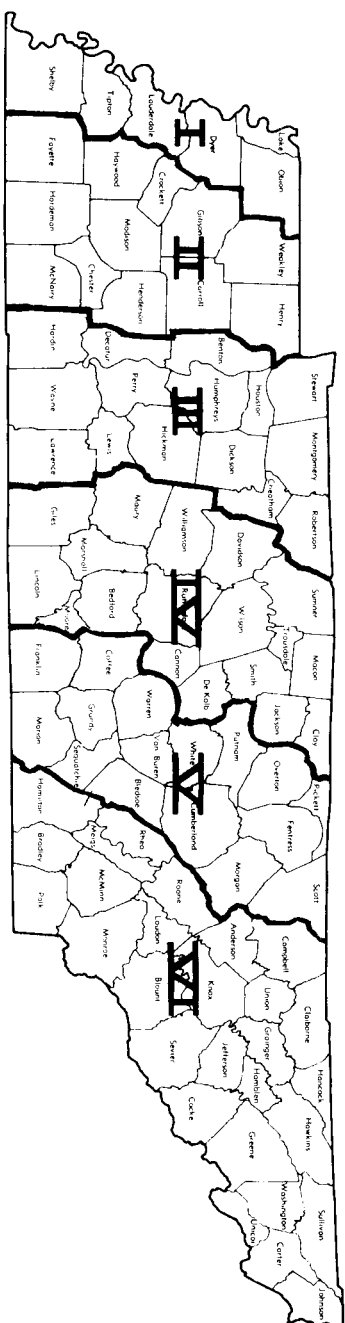


Figure 1. The location of Crop Reporting Districts

Table 1. Summary of mail survey of custom farm machinery rates in Tennessee, 1973

Area	Number of counties	Questionnaires mailed¹	Replies received	Percent response
I	6	54	31	57
II	12	129	78	60
III	15	112	41	37
IV	18	165	78	47
V	16	146	66	44
VI	28	184	85	46
Total	95 ²	790	379	48

¹One follow-up mailing was made about 5 weeks after the first mailing.

²List of names for the mail survey were available from only 79 counties.

Table 2. Custom machinery rates by job, Area 1, 1973¹

Job	No. farms reporting	Unit	Custom Rate Charge (\$)		
			High	Low	Avg.
Plowing	7	acre	7.00	3.00	4.36
Plowing	7	hour	20.00	5.00	9.43
Disking	9	acre	7.00	1.50	2.61
Disking	6	hour	20.00	8.00	11.00
Harrowing	3	acre	2.00	1.25	1.65
Harrowing	5	hour	10.00	8.00	8.67
Spread lime (inc. lime)	3	ton	8.00	4.00	5.67
Spread fertilizer	3	acre	2.00	1.00	1.50
Drill Small grain	5	acre	3.00	1.50	2.00
Plant cotton	5	acre	4.00	1.50	2.60
Plant cotton	4	hour	12.00	7.00	9.90
Plant corn (conventional)	5	acre	2.25	1.00	1.85
Plant soybeans	9	acre	4.00	1.00	2.08
Plant soybeans	3	hour	10.00	8.00	9.20
Cultivate row crops	9	acre	2.50	1.50	2.00
Cultivate row crops	3	hour	8.00	7.00	7.67
Apply herbicides (air and ground)	18	acre	3.00	1.00	1.46
Apply insecticide (air)	16	acre	3.00	.80	1.36
Apply insecticide (ground)	9	acre	1.50	1.00	1.11
Defoliation (ground and air)	6	acre	3.90	1.50	2.28
Cotton picking	21	lb. seed	.02½	.01½	.02
Cotton picking	3	lb. lint	.06	.05	.05½
Bale hay	7	bale	.35	.15	.25
Haul and store hay	5	bale	.40	.15	.22
Corn harvesting (combine)	9	bu.	.30	.15	.22
Small grain combining	6	bu.	.40	.30	.33
Soybean combining	15	bu.	.75	.30	.45
Soybean combining	8	share	25%	20%	21%
Bush hog	4	hour	10.00	6.00	7.25
Clear land	3	hour	22.00	18.00	19.50

¹Area 1 includes the following counties: Lake, Obion, Dyer, Tipton, Lauderdale, and Shelby.

Table 3. Custom machinery rates by job, Area 2, 1973¹

Job	No. farms reporting	Unit	Custom Rate Charge (\$)		
			High	Low	Avg.
Plowing	9	acre	5.25	2.00	4.31
Plowing	11	hour	12.00	5.00	9.27
Disking	8	acre	2.50	1.50	2.00
Disking	10	hour	12.00	6.00	10.30
Spread lime (inc. lime)	8	ton	6.50	5.00	5.81
Spread fertilizer	10	ton	6.50	.75	3.65
Spread fertilizer	14	acre	1.40	.75	.99
Drill small grain	3	acre	3.00	2.00	2.50
Plant cotton	11	acre	6.00	2.00	2.91
Plant corn (conventional)	9	acre	6.00	2.00	3.06
Plant soybeans	9	acre	3.50	2.00	2.50
Cultivate row crops	8	acre	4.00	1.00	2.00
Cultivate row crops	4	hour	12.00	10.00	11.50
Apply herbicide (air)	9	acre	2.00	.85	1.39
Apply herbicide (ground)	15	acre	3.00	.35	1.51
Apply insecticide (air)	13	acre	1.50	.85	1.05
Apply insecticide (ground)	8	acre	1.50	1.00	1.31
Defoliation (air)	10	acre	2.00	1.00	1.45
Defoliation (ground)	6	acre	1.75	1.50	1.54
Cotton picking	37	lb. seed	.03	.02	.02
Cotton picking	6	lb. lint	.06	.05	.05 2/3
Mow hay	6	bale	.10	.05	.07
Mow hay	3	acre	5.00	3.00	4.00
Rake hay	8	bale	.10	.04	.05½
Mow and condition hay	5	bale	.20	.05	.11
Bale hay	18	bale	.25	.11	.17
Mow-Rake-bale hay	6	bale	.35	.20	.30
Haul and store hay	10	bale	.20	.10	.16
Corn harvesting (combine)	18	bu.	.35	.15	.22
Soybean combining	29	bu.	1.00	.30	.51
Soybean combining	15	share	33%	20%	21%
Fill silo	4	ton	4.00	1.15	3.04
Hay stacking	4	ton	10.00	6.67	8.67
Bush hog	3	acre	5.00	2.50	4.17
Bush hog	8	hour	12.50	5.00	8.12
Clear land	18	hour	25.00	15.00	19.63

¹Area 2 includes the following counties: Weakley, Henry, Gibson, Carroll, Haywood, Madison, Henderson, Chester, Fayette, Hardeman, Crockett, and McNairy.

Table 4. Custom machinery rates by job, Area 3, 1973¹

Job	No. farms reporting	Unit	Custom Rate Charge (\$)		
			High	Low	Avg.
Plowing	9	acre	6.00	4.00	5.56
Plowing	5	hour	18.00	6.00	12.30
Disking	10	acre	5.00	2.00	2.75
Disking	4	hour	12.50	5.00	10.63
Spread lime	4	ton	4.50	2.00	3.53
Drill small grain	3	acre	2.50	1.00	2.00
Plant corn (conventional)	7	acre	6.00	2.50	3.79
Plant soybeans	6	acre	6.00	3.00	3.92
Cultivate row crops	3	acre	2.50	2.50	2.50
Apply herbicides	8	acre	4.00	1.00	2.00
Apply insecticide	8	acre	4.00	1.25	2.53
Defoliation (air)	3	acre	2.00	1.50	1.67
Cotton picking	3	lb. seed	.08	.06	.07
Mow hay	10	acre	5.00	2.00	3.50
Mow hay	3	bale	.05	.05	.05
Rake hay	9	acre	4.00	1.50	1.63
Rake hay	3	bale	.05	.03	.04
Mow-condition hay	4	acre	8.00	4.00	5.75
Bale hay	18	bale	.20	.13	.16
Haul-store hay	13	bale	.20	.11	.15
Corn harvesting (snapper)	4	acre	10.00	7.00	8.13
Corn harvesting (combine)	5	bu.	.25	.15	.18
Small grain combining	10	acre	10.00	6.00	8.60
Combining grass seed	4	share	50%	50%	50%
Bush hog	4	acre	6.00	4.00	5.00
Bush hog	5	hour	10.00	7.00	7.90
Grind feed	3	ton	6.00	6.00	6.00
Clear land	5	hour	25.00	16.00	20.20

¹Area 3 includes the following counties: Stewart, Montgomery, Benton, Houston, Humphreys, Dickson, Cheatham, Robertson, Decatur, Perry, Hickman, Lewis, Hardin, Wayne, and Lawrence.

Table 5. Custom machinery rates by job, Area 4, 1973¹

Job	No. farms reporting	Unit	Custom Rate Charge (\$)		
			High	Low	Avg.
Plowing	37	acre	8.00	4.00	5.97
Plowing	4	hour	12.00	5.00	9.25
Disking	31	acre	4.00	1.00	2.73
Disking	5	hour	8.60	5.00	6.52
Harrowing	11	acre	4.00	1.00	2.30
Spread lime	8	Ton	5.00	2.00	3.00
Drill small grain	19	acre	4.00	1.00	2.58
Plant cotton	3	acre	4.50	1.50	2.67
Plant corn (conventional)	28	acre	8.00	2.00	3.66
Plant soybeans	18	acre	6.00	2.00	3.39
Plant milo	5	acre	5.00	2.50	3.40
Cultivate row crops	9	acre	3.00	1.50	2.39
Apply herbicide	17	acre	3.00	.75	1.66
Apply insecticide	7	acre	5.00	.75	2.54
Cotton picking	4	lb. lint	.07	.06	.06½
Mow hay	10	bale	.10	.04	.07
Mow hay	20	acre	3.50	2.00	2.75
Mow-condition hay	3	bale	.10	.05	.08
Mow-condition hay	9	acre	7.00	3.00	4.83
Bale hay	44	bale	.20	.10	.14
Haul-store hay	30	bale	.35	.10	.16
Mow-rake-bale hay	5	bale	.30	.17½	.25
Mow-rake-bale-haul- store hay	9	bale	.41	.25	.35
Set tobacco	8	acre	50.00	25.00	37.50
Bush hog	11	acre	10.00	1.50	5.32
Bush hog	21	hour	11.00	5.00	9.05
Grind feed	6	ton	8.00	5.00	6.17
Clear land	15	hour	25.00	11.00	16.80

¹Area 4 includes the following counties: Sumner, Macon, Clay, Davidson, Smith, Wilson, Jackson, Williamson, Rutherford, Cannon, DeKalb, Maury, Marshall, Bedford, Giles, and Lincoln.

Table 6. Custom machinery rates by job, Area 5, 1973¹

Job	No. farms reporting	Unit	Custom Rate Charge (\$)		
			High	Low	Avg.
Plowing	9	acre	6.00	5.00	5.67
Plowing	12	hour	10.00	4.00	6.42
Disking	8	acre	4.00	2.00	2.72
Disking	11	hour	10.00	4.00	6.91
Harrowing	5	hour	6.00	4.00	5.20
Spread lime (inc. lime)	6	ton	8.00	4.50	6.08
Spread lime	8	ton	4.00	.75	2.21
Spread fertilizer	10	ton	7.00	1.00	4.70
Drill small grain	10	acre	4.50	1.00	2.28
Drill small grain	3	hour	6.00	5.00	5.33
Sod-plant corn	12	acre	8.00	5.00	6.50
Plant corn (conventional)	7	acre	5.00	1.50	3.17
Plant soybeans	7	acre	5.00	2.00	3.14
Cultivate row crops	3	acre	3.00	2.00	2.33
Apply herbicide	13	acre	3.00	1.00	1.81
Apply insecticide	5	acre	3.00	1.00	1.70
Mow hay	7	acre	3.00	2.00	2.86
Mow hay	6	hour	8.00	4.00	5.67
Mow-condition hay	4	acre	7.50	3.00	5.13
Mow-condition hay	5	hour	12.00	4.00	6.00
Rake hay	3	acre	1.50	1.50	1.50
Rake hay	4	hour	8.00	4.00	5.75
Bale hay	27	bale	.25	.12	.16
Haul-store hay	21	bale	.16	.06	.13
Mow-rake-bale-store hay	14	bale	.40	.25	.33
Set tobacco	3	acre	40.00	30.00	36.67
Bush hog	10	hour	8.00	5.00	6.45
Grind feed	4	ton	8.00	4.50	6.13
Clear land	3	acre	100.00	80.00	93.33
Clear land	14	hour	25.00	8.00	17.53

¹Area 5 includes the following counties: Pickett, Scott, Overton, Fentress, Putnam, Morgan, White, Cumberland, Warren, Van Buren, Coffee, Grundy, Bledsoe, Sequatchie, Franklin, and Marion.

Table 7. Custom machinery rates by job, Area 6, 1973¹

Job	No. farms reporting	Unit	Custom Rate Charge (\$)		
			High	Low	Avg.
Plowing	12	acre	10.00	3.00	6.50
Plowing	22	hour	12.00	3.00	6.43
Disking	4	acre	6.00	2.50	3.88
Disking	19	hour	12.00	3.00	6.43
Harrowing	10	hour	12.00	4.00	6.22
Spread lime	10	ton	4.00	1.00	2.78
Spread lime (inc. lime)	3	ton	10.00	4.50	8.00
Spread fertilizer	8	ton	8.00	1.50	5.52
Spread fertilizer	3	acre	1.50	1.00	1.33
Spread fertilizer	3	hour	10.00	4.00	6.33
Drill small grain	7	acre	4.00	2.00	2.79
Drill small grain	3	hour	8.00	5.00	6.00
Plant corn	12	acre	5.00	2.00	3.25
Plant corn	5	hour	5.00	3.00	4.40
Plant soybeans	4	acre	5.00	3.00	3.50
Sod-plant corn	9	acre	12.00	5.00	7.83
Cultivate row crops	3	acre	6.00	2.00	3.50
Cultivate row crops	4	hour	5.00	4.00	4.75
Apply herbicides	5	acre	6.00	1.50	3.80
Apply herbicides	3	hour	5.00	4.00	4.75
Mow hay	4	acre	4.50	2.50	3.25
Mow hay	5	bale	.07	.05	.06
Mow hay	11	hour	8.00	3.00	5.05
Rake hay	3	acre	2.50	1.50	2.00
Rake hay	12	bale	.07	.02	.04
Rake hay	5	hour	8.00	5.00	6.00
Mow-condition hay	3	bale	.25	.15	.16
Mow-condition hay	6	acre	7.50	2.00	4.75
Bale hay	40	bale	.25	.12	.15
Haul and store hay	18	bale	.15	.05	.11
Mow-rake-bale-store hay	5	bale	.35	.23	.29
Corn harvesting (snapper)	17	acre	15.00	7.00	10.82
Corn harvesting (combine)	4	bu.	.25	.07	.16
Corn harvesting (combine)	7	acre	14.00	7.00	10.07
Soybean combining	10	acre	12.00	7.00	10.05
Chop and fill silo	13	ton	4.00	2.00	2.54
Chop and fill silo (corn)	14	hour	35.00	12.00	20.61
Chop and fill silo (grass legume)	5	hour	40.00	10.00	21.40
Set tobacco	14	acre	100.00	15.00	37.14
Bush hog	7	acre	18.00	2.00	7.43
Bush hog	17	hour	20.00	4.50	8.79
Grind feed	10	ton	8.00	4.00	5.70
Clear land	9	hour	25.00	12.00	17.28

¹Area 6 includes the following counties: Anderson, Blount, Bradley, Campbell, Carter, Claiborne, Cocke, Grainger, Greene, Hamblen, Hamilton, Hancock, Hawkins, Jefferson, Johnson, Knox, Loudon, McMinn, Meigs, Monroe, Polk, Rhea, Roane, Sevier, Sullivan, Unicoi, Union, and Washington.

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