LABOR REQUIREMENTS FOR FIELD CROPS IN THE SOUTHEASTERN COASTAL PLAINS FARMING AREA OF ALABAMA

Ву

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Agricultural Experiment Station
of the
ALABAMA POLYTECHNIC INSTITUTE
in cooperation with
Bureau of Agricultural Economics
UNITED STATES DEPARTMENT OF AGRICULTURE

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Dear Agricultural Worker:

This analysis of labor requirements of crops in southern Alabama is designed to promote the most effective distribution of crops, particularly from the standpoint of full utilization of man- and mule-labor on the farm.

The approach here used is somewhat new in Alabama. We do not know whether you can make effective use of such a publication or not. Therefore, we are mimeographing a few copies for distribution and will await your statement as to your needs before running a supply. Requests should be prompt if maximum use is to be made of this information for the current crop year.

Criticism and comments will be very welcome and should be helpful in the preparation of other material for publication.

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MAY 9 '80

Ben T. Lanham, Jr., Assistant Agricultural Economist William F. Lagrone, Junior Agricultural Economist

Changing economic conditions in recent months have focused attention upon the problem of planning 1942 cropping systems from the standpoint of labor. The present outlook indicates that farmers in the Southeastern Coastal Plains farming area of Alabama may be faced with serious shortages in the availability of farm labor in 1942.

In any kind of farm planning — whether during an emergency period or during normal times — consideration should be given to both the labor requirements of crops to be grown and the labor available for growing these crops. Consideration should be given to the time that individual operations are usually performed and to the possibilities of performing some of these operations earlier or later than usual, thus, relieving the pressure of peak labor requirements during periods when the availability of farm labor is likely to be limited.

The purpose of this report is to outline the man- and mule-labor requirements for the more common crops grown in the Southeastern Coastal Plains farming area of Alabama. Henry County was selected as being representative of much of this area (Figure 1).

A number of Henry County farmers, chosen at random, were visited in the fall of 1940. From this survey <u>usual</u> or <u>normal</u> practices on each crop have been approximated. Charts and tables are constructed on the basis of one acre.

^{*}This report contains the results of part of the research work done on the planning phase of "Basic Farm Planning in Alabama" under a cooperative agreement between the Alabama Agricultural Experiment Station, Alabama Polytechnic Institute, and the Bureau of Agricultural Economics, United States Department of Agriculture. The authors acknowledge their indebtedness to H. V. McElwee for assistance in the collection and tabulation of basic field data upon which this report is based.

1/Agricultural Experiment Station, Alabama Polytechnic Institute.
2/Bureau of Agricultural Economics, United States Department of Agriculture.

Usual Labor Requirements for Specified Crops

A summary of the usual man- and mule-labor requirements for field work for specified crops is shown in Tables 1 and 2. In Table 1 the distribution of both man and mule labor is shown by months when using different types of equipment. In Table 2, the distribution of both man and mule labor is shown by type of operation performed when using different types of equipment. In both Table 1 and Table 2, all

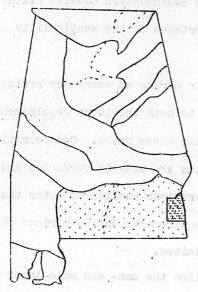


Figure 1: - Location of Henry County in Relation to Southeastern Coastal Plains Farming Area of Alabama.

operations from cutting stalks through hauling the harvested crop to the farm—stead are included. From the data shown in these two tables, comparisons of the total or seasonal labor requirements for different crops or different combina—tions of crops can be made. Days per acre represent the average time spent by the farmers who grew the crops, irrespective of the number and character of operations performed.

Usual Periods of Crop Labor Performance

The usual periods within which groups of operations are performed on different crops by the majority of farmers in this area are shown by shaded lines in Figure 2. The unshaded extensions of these lines show the variations from usual periods within which farmers report these operations can be performed. Since the time at which some operations are performed is identical or is subject to overlapping, they are combined, as, for example, breaking and preparing land for planting. All other operations are combined into three major groups — fertilize and plant, cultivate, and harvest.

Table I: - Usual Man- and Mule-Labor Requirements of Specified Crops for Field Work, by Months, Southeastern Coastal Plains Farming Area of Alabama.

03	Type			1			Hour	s of	lab	or p	er a	cre	erikani yang		
Crop	of equip- ment used-	Kind of Labor	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	To
** 35		Man	4	6	3	12	14	17	2	5	24	11	tar laferer i a pi a se ac	- September	
	(1)	Mule	4	6	3	8	7	7			Œ.	••			
		Man .	3	4	2	10	10	15	<u>2</u> 1	5	24	11			
Cotton .	(2)	Mule	6	8	4	8	7	7	2				on the second	JNO.	
The second secon	v. v	Man	3	6	3	6	6	3	23,000	••	1	4	• • •		
	(1)	Mule	3	6	3	6	4:	3		•		1	• •		
Corn (solid)	· · · · · · · · · · · · · · · · · · ·	Man	2	. 4	3	4	5	2	in Look	. • •	, 1	14	• •	••	
(SOLID)	(2)	Mule	4	8	6	7	4	3		•	• •	2			1
A 19	(1)	Man Mule	3	6	4	6	15	6	5.114	••	14.	14	••	• •	
Peanuts	· <u>(±)</u>	Man	2	<u>6</u> 4	3	5	12	4	12.00		<u>3</u>	12	•••	20.10	
(dug)	(2)	Mule	4	8	6	6	5	6		••	4	4	•••		
		Man	3	6	4	6	15	6	e om grana Galles		4	• •		• • •	Pagaran San
ras de la companya d No la companya de la	(1)	Mule	3	6	4	6	5	6	2.41.3		12.	::			
Peanuts .		Man	2	4	3	5	12	4	. Vinspi		•••		•••		Total sales
(hogged)	(2)	Mule	4	8	6	6	5	- 6	15.1.4.10		1				
à		Man	3	6	4	8	6	• •	••	••	••	••	• •		
	_(1)	Mule	3	-6	4	8.	6	do ting a sept	Talahan Talahan	•••					
Soybeans	(0)	Man	2	4	3	6	4	• •	CL 2 F 18	••		• •	••		
(grazed)	(2)	Mule	4	8	6	8	6	••	• •	••			waren 🛊 🖟	• •	Date of the
and the second of the second o	(1)	Man	2	. 5	3	5	7	3	4	8	11.	• •	• •	• •	
Cowpeas .	$\cdot \frac{\cdot}{\cdot} (\perp)$.	Mule Man	2	5 4	2	<u>5</u> 4	7	<u>3</u>	4	8		•••	•••	7000000	W 4.7
(seed)	(2).	Mule	2	. 8	4	6	7	3			53	••	••		i i
<u> </u>	(~).	Man	1		••	••	5	$\frac{1}{1}$	1 (01.72)	•••	••	•••	9	••	eng-to - aggreen.
and the second section of the section of the second section of the second section of the section of the second section of the sectio	_(1)	Mule		ed som in the	e Ac 	. N		. 2	in the late		I de la constante de la consta	••	9		100
Oats (Cut. and.		Man	1	•••		••	<u>5</u>	1	alan a	•••	•	1019-1	7	~	
fed unthreshed	. (2).	Mule		A consequence			5	2		and the same	34.		14	Star	
		Man	2	. 8		• • •			e sillo ing	••,	••		2		1 1
2.4 4.5	. (1)	Mule	2	8		and the same	America (S. Rode)			marina	4.		2		y Net
Winter legumes	4.6	Man	1.	. 6	• •	•	•	••	•	••	••	• •	1	••	
(turned)	(2).	Mule	2	12	• •	• •	3 7	• •	• •		To have	• •	2	• •	1
	7,31	Man	. 4	. 4	8	7	12	7	. 2	••	IN.	56	56	• •	Ī
Cumamaana	(1),	Mule	4	4	8	4	6	6	2	eren egyeten den		20	20	M.S.P.E.	
Sugarcane	(2)	Man Mule	. 3.	3	4	6	d.	7	1 2	•		46 20	46 20	• •	1
(Syrup)	(~)	Man	. 3	6	· 4	17	16	3			34			••	de dea
e protesta e de la companya del la companya de la c	(1)	Mule	, 3	6	4	6	6	٠ ٦ ر	1.1.1		- 8	••		••	
S. potatoes	· · · · · · · · · · · · · · · · · · ·	Man	2	4	3	16	14	3	1.400, 10		33	··	a o co	<u> </u>	* 5
(home use)	(2)	Mule	· 4	.8	6	8	6	3	127		11		de la	egio H	

(1) All operations performed with one-mule equipment except those ordinarily per-

in the spokens.

⁽²⁾ All operations performed with two-mule equipment except fertilizing, planting and those cultivating operations which ordinarily are performed with one-mule equipment regardless of size of farm, etc.

Table 2: - Usual Man- and Mule-Labor Requirements of Specified Crops for Field Work, by Operations, Southeastern Coastal Plains Farming Area of Alabama.

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The second secon	Type		many series				Tarana and passage	and the same of th	ha composition is	Managari Assenta	Makrieson	en en en en en en en	en transmission of the	
Crop	of equip- ment used1/	Kind of labor	Cut stalks	Flat	Lay off	Ferti- lize	Plant	Bar	Chop	Side- dress		Culti- vate	Harvest	Total
Control of the Contro		Man	2	8	` 3 -	2 -	2 -	' 4 -	9	· · · · · · · · · · · · · · · · · · ·	10	16	40	98
t er en dil	(1)	Mule,	2	8	3	2	2	4		wateroya ~ pp		16.	• •	37
		Man	· · · · · · · · · · · · · · · · · · ·	6	2	2	2	2	9	2	10	9	40	85
Cotton	,(2)	Mule	2	12	4	2	2	4				16.		42
and the control of th	desembly (1975) for the rap solvers	Man .	2	8	2		2	3		2		8	5	42 32
	(1)	Mule	2	8	2		2	3				8	1	26
Corn	· · · · · · · · · · · · · · · · · · ·	Man	1	6	2		2	2		2		5	5	25
(solid)	(2)	Mule .	2	12	4		2	4	••		••	8	2	34
B. B		Man .	2	8	- 3	2 +	2	4		22.••	10	9	28	68
Doonyth	(1)	Mule.	2	. 8	3	2	2	4	••	••	••	9	7	37 54
Peanuts (dug)	(0) **	Man .	1	- 6	2	2	2	2		h.L• •	10	5	24	54
(aug)	(2)	Mule	2	12	4	2	2	4_	••		••	9	8	43
	*/*a \ * *	Man .	2	8	3.	2	2	4		• • •	10	9		40
Peanuts	(1)	Mule	2	8	3	2	2	4_	••			9	••	30
(hogged)	(2.)	Man . Mule	1					2	• •	•1 •	10	5	with an are were	30
(Hogged)	(2.)	Man	2	12	4	2	2	4	••	•••	• •	9		35 27
5 6 6 4 5 2	(1)	Mule	2 2	8	3		2	4	State of the second	Alexani 🖜 🖜 essen	(1.00 -) (•)	6		
Soybeans,	<u></u>	Man	- <u>2</u>	6	<u>3</u>	2	2	2	••	•••	••	6	• •	27
(grazed)	(2)	Mule	2	12		2	2	4	• • •		••	4	e starpar i samu	19
and a first of the control of the co	e in a consequence of	Man	2	8	4	~	2	<u>4</u> 4	4.5	••	••	6	12	32
	_(1)	Mule	2	8	3		2	11.64	di • - •	yk i i e i e i e i e i e i e i e i e i e		6		
Cowpeas		Man	contravalent and agreed	6	2	••	2	2	••	1	••	4	12	25
(seed).	(2)	Mule	2	12	4	• •	2	4		· · · · · · · · · · · · · · · · · · ·	••	6		
and the second second property of the property of the second seco	alan an and and an	Man	(1 + # + # + # + # + # + # + # + # + # +	8	16	(A)	ī	9.1.101	3/5	· i			6	30
Oats	(1)	Mule		. 8	10 H &	* 1.	ī		F-100 100 100 100 100 100 100 100 100 100	to Solderine) have the objects	Personal Linguistics	entropic estation	7	16
(cut and fed	rinnered Schrieburg County in	Man	erne and ending for some	*6	and a street of the	* * * * * * * * * * * * * * * * * * * *	1	elle:	1.14	7 1		<u> </u>	6	14
unthreshed)	(2)	Mule	100	12	8 c g	4	2	rgall.			fire.	i tot	7	21
e tre l'est en la service de la la les de la companya de la companya de la companya de la companya de la compa La companya de la co	$\frac{\partial f}{\partial x} = \frac{\partial f}{\partial x} \left[\frac{\partial f}{\partial x} + \frac{\partial f}{\partial x} +$	Man	, 2	8 0	, # #	4	2	Manne	1.5	1.0	nde t		8	12
	(1)	Mule	2	5 8	** 0		2	n/k				to the displacement to	8	12
Winter legumes 2/		Man	1		A	nder of the colors	1			Annual •			6	8
(turned)	(2)	Mule	2	4.5	** 0		2	mass.		• •	1601	1.07	12	16
The second secon		Man	Total entre Market	8	2	h.,.,	6	3		2	8	15	112	156
20 22 42	(1)	Mule	1.0	8	2			3				15	40	68
Sugarcane	a a _ a a	Man	electrony or a large con-	6	2		6	2		2	8	12	92	130
(syrup)	(2)	Mule	altrak u •t.•	12	4			4				20	40	80
A A A A A A	16, 3 34 4	Man	2	8	7	2.	11	4		2 L. L	10	5	34	83
S. potatoes	(1)	Mule	2	8	7	2	•••	4	• •			5	8	36
이 사이에 살아가는 내목생활한 회장에게 되었다면 회원이 없었다면 하다 나는데 다.	(2)**	Man	1	6	5	2	• • • • • • • • • • • • • • • • • • • •	2		Lan	10	5	33	75
(home use) 1/Numbers under	(2)	Mule	2	12	10	2		4				5	11.	46

(1) All operations performed with one-mule equipment except those ordinarily performed by hand.

(2) All operations performed with two-mule equipment except fertilizing, planting, and those cultivating operations which ordinarily are performed with one-mule equipment regardless of size of farm, etc. 2/Figures reported under harvesting for Austrian Winter peas are for turning under

in the spring.

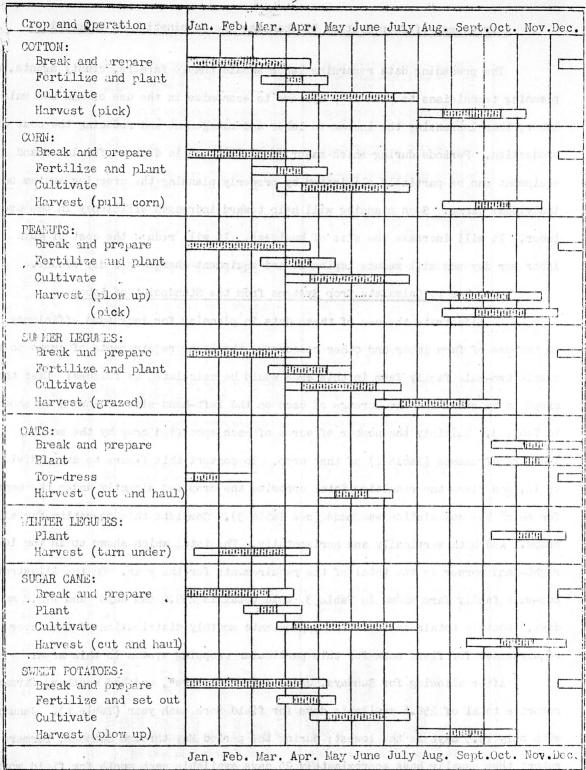


Figure 2: - Usual Period, and Variation from Usual Period, During Unich Specified Groups of Operations are Performed on Specified Crops, Southeastern Coastal Plains Farming Area of Alabama. (Based on estimates by farmers in Henry County, Alabama)

Improvement of Crop Systems by Changing the Combination of Enterprises

The preceding data regarding labor should enable farmers, county agents, and planning technicians to plan crop systems to economize in the use of man and mule labor, thus increasing the income to labor and management and reducing the cost of production. Periods during which major crops conflict in demands for labor and equipment can be partially eliminated by properly planning the cropping system on individual farms. Such planning will help toward increased efficiency in the use of labor. It will increase the size of business. It will reduce the cost of mule labor per day and will reduce implement and equipment charges per day of use.

How to Calculate Crop Systems from the Standpoint of Labor

To illustrate the use of these data in planning for increased efficiency in the use of farm labor and other resources, the labor requirements of crops on a sample two-mule family farm in this area would be calculated as follows: List the crops to be grown and the acreage of each on the left-hand side of Form A as shown in Table 3. Multiply the number of acres of each specified crop by the monthly labor requirements (Table 1) of that crop. To convert this figure to days, divide by 10, and place the resulting total opposite the crop and directly under the month for which the calculation was made (see Table 3). Complete this operation for all crops. Add both vertically and horizontally. The total which shows up in the lower right-hand corner is the total of the requirements for the year. On the illustrated two-mule family farm shown in Table 3, this total is 259.6 man days and 212.2 mule days. Monthly totals indicate the approximate monthly distribution of the labor requirements for field work for this particular cropping system in this area.

After allowing for Sundays, usual farm "holidays", and bad weather, farmers report a total of 258.6 available days for field work each year (Table 4). January with only 13.5 days is the lowest; during the period May through October, farmers report they usually have approximately 25 days available each month for field work.

temperal office from the state of extraction in the

Table 3: - Total Man and Mule Labor Requirements for Field Work, on a Sample
Two-Mule Family Farm, Monthly and Annually, Southeastern
Coastal Plains Farming Area of Alabama

Thused upon an analysis of westher station deta, and estimates by formers is Heary County, Alabema,

the explained above, and rates and farakes under a years of age,

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
*6		· a ro	• 6 17 • 1	7.21	19*3	10"4	10%	1575	16.6 1	ie*s i	3**	10*5	110"
11.0	3.3	4.4	2.2	11.0			1.1	5.5	26.4	12.1	.0	.0	93.5
21.5	4.3	8.6				4.3	:0	.0	2.2	8.6	.0	.Ô	53.8
11.5		4.6		5.8		4.6	.0	.0	13.8	13.8	.0	.0	62.
7.5	1.5	7		3.8		3:0	.0	.0	0	.0	.0	.0	22.
1.0	.1							.8	.0	.0	.0	.0	2.9
		· 2	*3 :4		•5		70 .1	0		2.3	2.3	.0	6.
						• 3	.0	.0	3.3	.0	.0	.0	7.5
1.0	-		•5	•5	•5	•7	•5	.2	•5	.2	.2	.1	4.6
1.0	.2	10 .4	•3.	1.0	1:0	:3	.0	:0	2.0	1.0	.0	.Ò	6.2
	0	0	0	0	0	0	0	.0	0	0	0	.0	
60.0	12.2	22.5	15.9-	33.0	48:4	30:2	2:1	6.5	48.2	38.0	2.5	,1	259.6
•		·Ú	*0	•	2.5	157	15*#	8.3	T)			U	30
11.0	6.6	8.8	4.4	8.8	7.7	7.7	2.2	.0	0	.0	.0	.0.	46.2
21.5	8.6	17.2	12.9	15.0	8:6	6.4	.0	.0	•0	4.3	.0	.0	73.0
11.5	4.6	9.2	6.9	6.9	5.8	6.9	.0	.0	4.6	4.6.	.0	.0	49.5
7.5	3.0	6.0	4.5	4.5	3.8	4.5	.0	.0	.0	.0	.0	•0	26.
:1.0	.2	.8	• 4	.6	•7	• 3	.0	.0	.0	0	•0	.0	3.0
• 5	•3						.1	.0	.0	1.0	1.0	.0.	j+*C
1.0			.6	.8		• 3	.0.	0	1.1	0	0.	.0	4-6
1.0.	.0	•5	•5	•2	:2	•3	.2	.0	.2	.0	.0	.0	2,1
1.0	•4	.8	.6	•5	•5	_	.0	.0	4	2.	.0	0	-3.5
4.0	.0			.0	.0	. 0	Annual Property of the	.0	•0	.0		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
60.0	24.1	44.4	31.0	37.6	28.3		2.5	0	.6.3.				212.2
The state of the s	21.5 11.5 7.5 1.0 1.0 1.0 4.0 60.0	21.5 4.3 11.5 2.3 7.5 1.5 1.0 .1 .5 .1 1.0 .2 1.0 .0 12.2	21.5 4.3 8.6 11.5 2.3 4.6 7.5 1.5 3.0 1.0 1 .4 1.0 2 .4 1.0 2 .5 1.0 2 .4 1.0 2 .5 1.0 2 .4 1.0 2 .5 1.0 2 .4 1.0 2 .5 1.0 2 .8 1.0 6.6 8.8 21.5 8.6 17.2 11.5 4.6 9.2 7.5 3.0 6.0 1.0 2 .8 1.0 4 8 1.0 0 5 1.0 4 8 1.0 0 0	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5

of Age and Sex Gloss, Monthly and Assually, Southeastern Comstal

Table As - Roletive alcunts of Americanicator Labor Available for Field Sork.

^{1/}Labor requirements estimated.

Table 4: - Relative Amounts of Man-Equivalent Labor Available for Field Work, by Age and Sex Class, Monthly and Annually, Southeastern Coastal Plains Farming Area of Alabama2

	Based o	n esti	mates	by f	armer	s in	Henry	County	. Alat	ama)				
2747	Man			11.6	11.0	4,000		and and and	ancestrer e	Section and Interest	1 2 1 1 	3 75	and a second	Secretary and the
Age Class	equiv.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct. N	ov.	Dec.	Total
Days suitable for field work	xx	13.5	í6.1	20.7	23.5	24.7	24.8	24.8	24.6	25.2	24.6.2	0.7	15.4	258.6
Male:	170	sale.	Z	Aug" To					IJ	1.2	15 gW	- 4	No.	1/2/2
Operator	1.00	13.5	16.1	20.7	23.5	24.7	24.8	24.8	24.5	25.2,	24.6,2	0.7	15.4	258.6
Other men not in school:	170	1					- 4		No.		4. V		4,7	2 U
Age 13-60 years	1.00	13.5	16.1	20.7	23,5	24.7	24.8	24.8	24.6	25.2.	24.6.2	0.7	15.4	258.6
Boys in school:						200		1800	(d)	\$ 1 m		38.	- FA	1.250
Age 13-16 years	1.00	.0	0	0	.0	18.5	24.8	24.8	20.4	12.6	8.2	.0.	.0	109.3
Boys in school:			1 8		S E			3 2			r	9.0	***	- 45 m
Age 8-13 years	•50	.0	.0	.0	.0	6.2	12.4	12.4	8.2	.0.	.0	.0.	•0.	39.2
Other men on farm:														80 W 1.00 m
Age 60 years & over	:80	10.8	12.9	16.6	18.8	19.8	19.8	19.8	19.7	20.2	19.7 1	6.6	12.3	207.0
Other boys on farm:	pr C	70		*0		*(10) V			Q
Age: under 8 years	:00	*5.0	• .0	.0	:0	.0	.0	.0	.0	.0	·0°	.0	.0	.0
Temale	10			*6	100		• 5	1.1	5				£	7.5
Women not in school:	170	5	*#	* }	118	7.1	1 1	- 0	*0	- 1	70	, ,	- 2	7.8
Age 13-60 years	.80	10.8	12.9	16.6	18:8	19.8	19.8	19.8	19.7	20.2	19.71	6.6.	12.3	207.0
Girls in school:	1 50	****	H		ji.		5	- 1	- 4		10	40	9	50
Age 13-16 years	.80	0	0	0	:0	9.9	19.8	19.8	13.2	.0	.0.	.0	.0	62.7
Girls in school:	1.0	* 1	. E.	1,11	27.2	1.		0			1. 1.1 6	^	***	62.1
Age 8-13 years	:40	0	. 0	0	.0	4.9	9.9	9.9	6.6	•0`	.0*	.0	.0	31.3
Other women on farm:				2.3	1110		3 C 1	76 1	760	36.6	1007		70.0	170 7
Age 60 years & over	.66	8.9	10.6	13.1	15.5	16.3	16.4	16.և	16.2	16.6	16.2 1	5.1	10.2	170.7
Other girls on farm:				31.	TOL.	107	1,000	9014	AME.	Sept.	. Odt.	MOV	Dog.	Total
Age: under 8 years	.00	.0	.0	•0	.0	•0	.0	•0	•0	.0	. •0	.0	•0.	

1/A man-equivalent worker is here defined as one who can do the usual amount of work performed by one male worker in a 10-hour work day.

3/Based upon an analysis of weather station data, and estimates by farmers in Henry County, Alabama.

^{2/}County schools usually open on August 20 and close on May 15. Boys in school (13-16 years old) are usually available for work on farms half-time from school opening on August 20 till October 20, and from May 1 till school closes on May 15. Males and females not in school are available full time; all males and females in school are available from May 15 to August 20 except boys in school (13-16 years old) as explained above, and males and females under 8 years of age.

By using Form B and the data shown in Table 4, farm operators can calculate the total amount of man-equivalent labor available on their farms monthly and annually for performing necessary field work. For instance, if the two-mule family farm shown in Table 3 is operated by a family consisting of an operator, his wife, two boys (ages 9 and 17), and three girls (ages 4, 11, and 14), list each family member and his age on the left-hand side of Form B as shown in Table 5. Find the proper age and sex classification into which each family member falls (Table 4), and copy the respective figures opposite each name (see Table 5). Complete this operation for all the names listed. Add both vertically and horizontally. The total which appears in the lower right-hand corner is the total amount of labor evailable for the year. On the illustrated two-mule farm shown in Table 5, this total is 357.4 days. Monthly totals indicate the approximate monthly distribution of available man labor.

Table 5: - Total Man-equivalent and Mule Labor Available for Field Work on a Sample Two-Mule Family Farm, Monthly and Annually, Southeastern Coastal Plains Farming Area of Alabama.

Item	Age	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
MAN LABOR:		4.												
Oper'r	40	13.5	16.1	20.7	23.5	24.7	24.8	24.8	24.6	25.2	24.6	20.7	15.4	258.6
Oper'r's wife	42	10.8	12.9	16.6	18.8	19.8	19.8	19.8	19.7	20.2	19.7	16.6	12.3	207.0
Воу	17	13.5	16.1	20.7	23.5	24.7	24.8	24.8	24.6	25.2	24.6	20.7	15.4	258.6
Boy	9	.0						12.4			.0			
Girl	14	.0	.0	.0	.0	9.9	19.8	19.8	13.2		.0	.0	.0	62.7
Girl	11	.0	.0	.0			9.9	9.9	5.6	.0	.0	.0	0	31.3
Girl	_4	.0	0	0	.0	.0	.0	0	0	.0	.0	.0	.0	. (
Total	-	37.8	45.1	58.0	65.8	90.2	111.5	11.1.5	96.9	70,6	68.9	58:0	43.1	857.1
MULE LABOR:			1 - X - X - X - X - X - X - X - X - X -			144		, in						
Amt. per mule	_	13.5	16.1	20.7	23.5	24.7	24.8	24.8	24.6	25.2	24.6	20.7	15.4	258.6
No. of mules										2				2
		27 ()	22 2	1.7 1.	1.7 0	1.9 1	19.6	1.9 6	1.9 2	50.4	1.9 2	1.7 1.	30 B	517 2

Mule labor available for field work is calculated simply by multiplying the number of available mules by the number of days suitable for field work each month (Table 4). On a two-mule farm in this area, total mule labor available would be

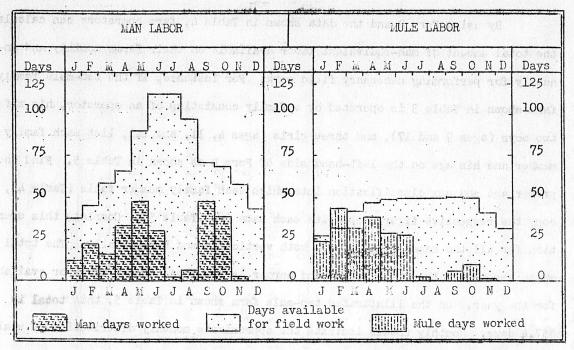


Figure 3: - Man and Mule Labor Available and Used for Field Work on A Sample Two-Mule Family Farm, Monthly and Annually, South-eastern Coastal Plains Farming Area of Alabama.

517.2 mule days annually, ranging from 27 mule days in January to approximately 50 mule days monthly for the period May to October inclusive (Table 5).

By comparing the calculated monthly requirements of labor for field work with the calculated monthly totals of labor available for field work (Figure 3), farmers can readily see how much of the available labor is being utilized. They can see where peak demands for labor occur. They can see where their periods of big surplus labor occur. They can determine how far they can go in shifting crops and reorganizing their farming systems. They can see where new crops will best fit into their set—up for utilizing labor.

On some farms it may appear that there is not enough available labor to handle the crops grown during periods of peak labor requirements. This shows up significantly in Figure 3 for mule labor during February. It must be remembered, however, that some of the required work can be shifted from one month to another if necessary (Figure 2). For instance, there is a wide range in possible dates for

cutting stalks, breaking, and preparing land for spring crops. In shifting the combination of crops or periods of labor performance to utilize these variations, particular attention should be given to the amount of labor required for each operation (Table 2). Labor requirements for preparing land and for planting a crop are definite, but are not always fixed as to date. For instance, planting dates ordinarily will not permit as much variation from usual periods as will dates for breaking and preparing land for planting.

It is not possible to construct a single table or chart (showing either the amount of labor available or the amount of labor used) that will fit all farms in any particular size group of farm. But the two-mule family farm used in this report illustrates one method whereby such calculations can be made for individual farms. By using the data presented in this report and working on forms similar to Form A and Form B, shown in the back of this report, any farmer can readily calculate the labor available and the labor needed on his farm for any crop system he may adopt.

When a change in the cropping system is contemplated, such as readjustments in the acreages devoted to different crops, the introduction of new crops, or a change in the total acreage of the farm, the data in this report should help to determine in advance the maximum acreage of any crop or combination of crops that can be handled by a given number of men and mules. If a farmer adopts a changed cropping system, he can find the busiest seasons, and how much extra labor, if any, will have to be hired to help out during such periods.

Rapidly changing economic conditions during recent months and the increasing demands for larger farm production necessitate careful and skillful planning for successful farm operation during the next few years. A major point for serious consideration is the question of farm labor. The outlook for increasing shortages in the availability of farm labor and for higher wages for available farm labor calls for greater emphasis upon increasing the efficiency of the use of available farm-family labor now than during normal times. To this end, this report should contribute materially, if correctly used.

Form A - Total Man and Mule Labor Requirements for Field Work, Monthly and Annually

Crop	Acres	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	:Tota]
AN LABOR: (Days)									:	4 3			·	244
Cotton		27												and the
Corn :					12	A16	:			1 Jan 1 1 2 3 4 1			:	5-1
Peanuts (dug)				9 3				12.0 · 12						
Peanuts (hogged)		i ha	-10			100	1			100 mg			:	
Cowpeas	C.A.	1,05		197		-13	$\mathcal{H}_{A}(\mathcal{G})$	A 14	1000	. ja - 0	;	2004 6		
Cane	publication of the second	-61			19.			100	: 75			La d	jes,	. 2
S. Potatoes		lay				19	312	· 5 5		Selection of the select			: [
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		100			19			* 14 65				n.	· #	15.4. 15.1
										14.		ort See	10-1,250	
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Misc. crops1/								Pro State		- 10 - 10		+ 1		
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Total				d 5	10			La est		· 10 · 10	Service Policy	6-e [14	
JLE LABOR: (Days)		5	e de la			提						78-76 	. 4	
Cotton		100			-5	1 E 10				07 35 - 53	- 4	(A) (1)	: 4	100
Corn	1			240	A		7 S. C.			o	7.1 7.0 1.0	300 2000		i to 1
Peanuts (dug)				13		511		a š	1-10	- E	- App	200		
Peanuts (hogged)			三塩		5		ilan.	16.007 6000 16.00 16.00			25		: 7	
Cowpeas						1.00		4 9		i .	fina.	ar it	1	
Cane		100		2 : G	Transition			5 4		5 8	3.5	14	: 6	
S. Potatoes					19	£.				b 0	juli Nega	8 2		
				n Li	T)		*	T 6	Fi.		1			mu.
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Garden1/		1 2 1		- \$		100		rs ion	. 0		B			
Misc. crops1		5 ·	72	is la			5	T 1	54	17 July	-64	E 0	· 4	100
Idle	La Estado		13			7 4		a Ly	14	-			:	-13
Total		:		1 4				11 %	:	-				in.

1/Labor requirements estimated.

Form B: - Total Man-Equivalent and Mule Labor Available for Field Work, Monthly and Annually

Item	Age	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
AN LABOR: (Days)				;			:	:					The state of	
Operator	-	13.5	:16.1	20.7	23.5	: 24.7	24.8	24.8	24.6	25.2	24.6	20.7	15.4	258.6
Operator's wife							:							
							:					:	200	
				-		-	:						:	:
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						:	:		:					
Total	XXX													
TULE LABOR: (Days)			:	†				-						:==
Amount per mule	XXX	13.5	:16.1	20.7	23.5	24.7	24.8	:24.8	24.6	25.2	24.6	20.7	15.4	258.6
Number of mules			<u>:</u>						:					
Total	XXX					:	:	:	:			:	:	: