



BEEF CATTLE LABOR REQUIREMENTS

*Progress Report of Missouri
Beef Cow Research Panel (1963 Records)*

Special Report 45, Oct., 1964
Agricultural Experiment Station
University of Missouri

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BEEF CATTLE LABOR REQUIREMENTS

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This publication gives a preliminary report on the progress of the labor study being made as a part of the Beef Cow Research Panel. The report contains data sent in during 1963 by 132 cooperators in a 17-county area in north central Missouri. This data will be analyzed further in conjunction with 1964 records and will be presented in greater detail at a later date.

The Beef Cow Research Panel contains six panel segments. Definitions of these panel segments are:

- I. Herds of 35 cows or less
 - a. Feeder calf production - calves sold at weaning
 - b. Calves full fed from weaning to market
 - c. Calves weaned and not placed on full-feed at that time
- II. Herds of more than 35 cows
 - a. Feeder calf production - calves sold at weaning
 - b. Calves full fed from weaning to market
 - c. Calves weaned and not placed on full-feed at that time

The labor requirements reported by the cooperators in this study include time spent in caring for herd bulls as well as replacement heifers and bulls.

The preliminary findings on labor requirements of beef cows should be of interest to cooperating farmers and ranchmen, extension personnel, and others interested in planning the use of farm resources.

TABLE I
SUMMARY OF ANNUAL LABOR REQUIREMENTS FOR BEEF COWS
HOURS REQUIRED PER COW BY PANEL SEGMENTS
MO. BEEF COW RESEARCH PANEL, 1963 RECORDS.

	YOUR FARM (Hours)	PANEL AVG. (Hours)	PANEL SEGMENT						CREEP FED (Hours)
			Ia (Hours)	Ib (Hours)	Ic (Hours)	IIa (Hours)	IIb (Hours)	IIc (Hours)	
Feeding Hay		2.10	2.53	2.05	2.70	2.85	2.43	1.50	2.73
Feeding Silage		.74	1.05	.36	.88	.52	1.26	.70	.89
Other Feeding		.39	.52	.36	.49	.55	.85	.19	.75
Watering		.47	.60	.42	.59	.51	1.06	.30	.48
TOTAL CHORE LABOR		3.70	4.71	3.20	4.65	4.45	5.61	2.69	4.85
Checking & Observing		.96	1.07	1.65	1.41	1.30	.74	.65	1.22
Parasite & Disease Control		.38	.18	.23	.48	.52	.28	.34	.61
Sorting, Moving, Hauling etc.		.49	.39	.42	.48	.61	.34	.49	.66
Feed Hauling & Grinding		.08	.18	.03	.07	.17	.13	.02	.10
Moving, Repair & Upkeep of Equipment		.10	.09	.15	.06	.13	.15	.08	.18
Bedding & Manure Hauling		.15	.33	.03	.39	.28	.05	.04	.64
Buying & Selling Cattle		.02	.13	.07	.01	.01	.05	.00	.05
Miscellaneous		.07	.13	.04	.04	.13	.05	.06	.08
TOTAL OTHER LABOR		2.25	2.51	2.63	2.95	3.17	1.79	1.68	3.39
TOTAL ALL LABOR		5.95	7.22	5.84	7.61	7.61	7.41	4.37	8.24
*Repair of Fences & Cattle Buildings		.87	.45	.44	1.06	1.56	.97	.59	—
Average number of Cows		46.8	21.8	20.9	26.4	76.1	50.5	64.5	40.2
Average number of Heifers on Hand		5.9	2.5	1.8	3.9	7.2	4.5	9.1	4.0

*The labor for repair of fences and cattle buildings is in addition to "all labor" because it includes some time building new fences and also because it varied so much among cooperators.

SUMMARY OF LABOR REQUIREMENTS

Table 1 is a yearly summary of per cow labor requirements for each of the several jobs as reported by members of the various panel segments. The blanks in the first column are for your use. You may compare your own herd requirements with those of the panel average as well as those of each panel segment.

In the 1963 report, the time spent in repair of fences and cattle buildings is not a part of the year's total. It appeared that much of this time was actually being spent on construction of new fences or buildings or extensive repair of old ones and should not all be charged to one year's operation. This time also varied from zero for some cooperators to several hours per cow per year for others.

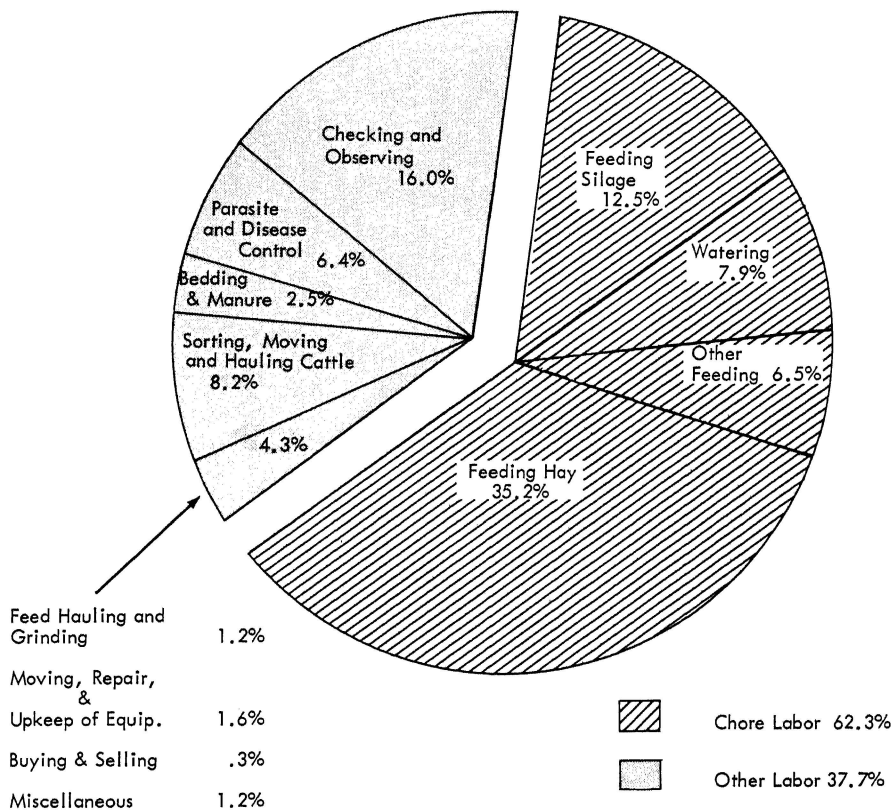


Fig. 1. Distribution by jobs of yearly labor requirements as reported by 132 cooperators

PERCENTAGE DISTRIBUTION BY JOBS

Figure 1 is a breakdown of the labor reported by all panel members into 12 jobs. Feeding hay, feeding silage, other feeding, and watering were classified as "chore labor" and required 62.3 percent of the total time. The other eight jobs were classified simply as "other labor" and they required 37.7 percent of the total time.

As can be seen from figure 1, feeding of roughages took almost 50 percent of the total time required.

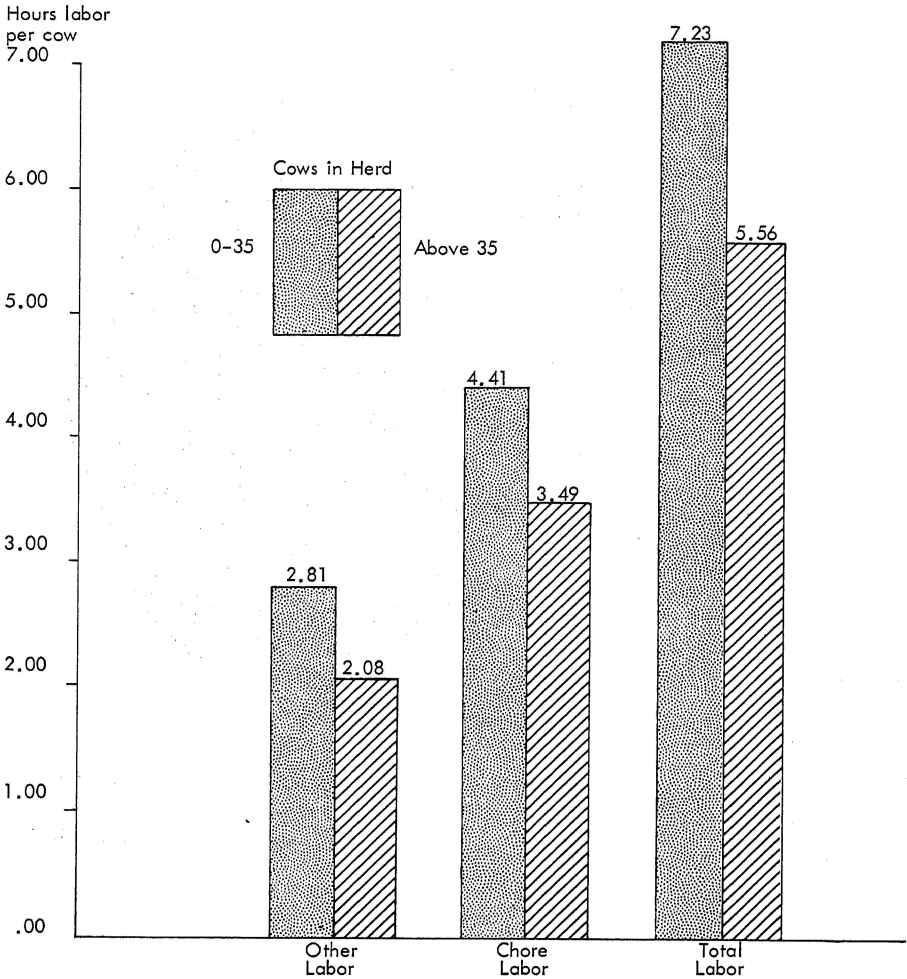


Fig. 2. Labor requirements per cow for different kinds of work and for different sizes of herds. (Records from 59 cooperators with herds of less than 35 cows and from 73 cooperators with herds larger than 35 cows.)

COMPARISON OF LARGE AND SMALL HERDS

Figure 2 is a breakdown of the total hours of labor required per cow per year into hours of other labor and hours of chore labor. This chart also shows how large and small herds compare as to labor requirements per cow per year.

Data from the records of 73 cooperators with herds of over 35 cows and of 59 cooperators with herds of 35 cows or less show that the larger herds required 1.67 hours less per cow on the average.

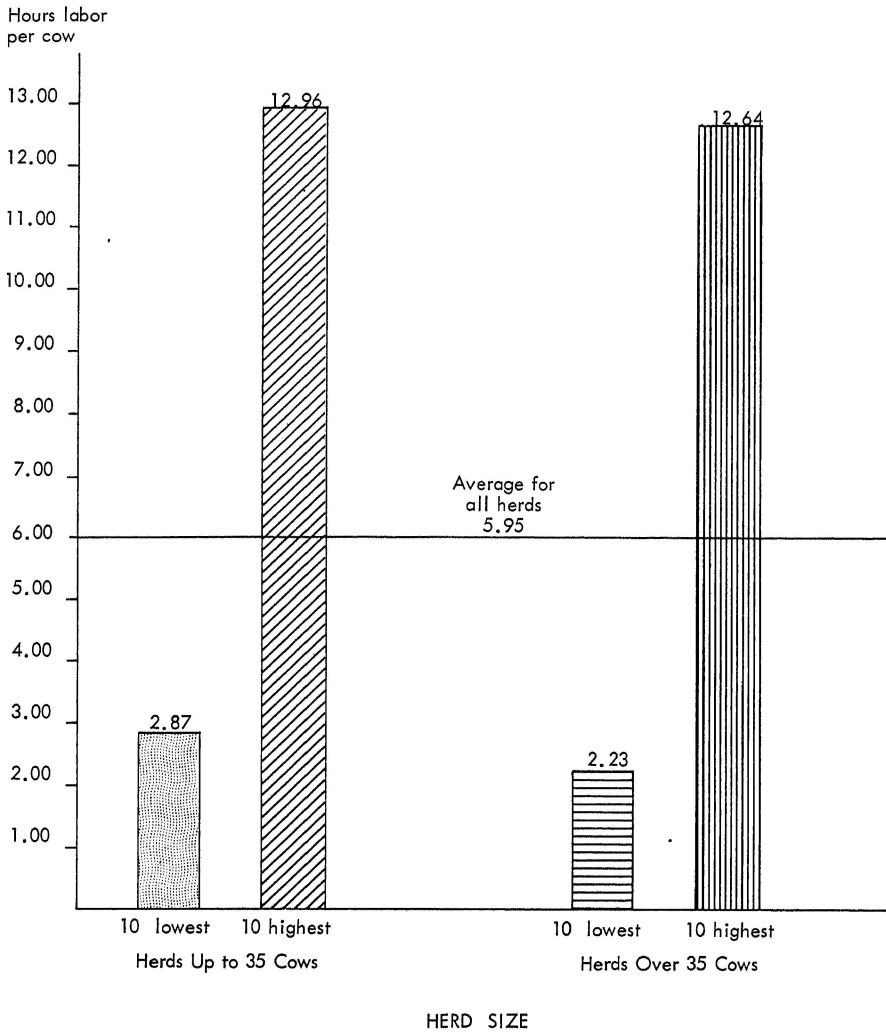


Fig. 3 - A comparison of the average labor requirements of the 10 lowest and 10 highest herds in each size grouping.

RANGES IN LABOR REQUIREMENTS

Figure 3 shows the variation in labor requirements reported per cow for the year 1963 for small and large herds.

The average time per cow for the 10 herds requiring the least amount of time was 2.87 hours among the small herds and 2.23 hours among the large herds. The 10 herds requiring the largest amount of time averaged 12.96 hours per cow for the small herds and 12.64 for the large herds.

The average time for all herds was 5.95 hours per cow per year, in addition to time spent repairing fences and cattle buildings.

The range in labor requirements among all herds went from a low of 1.28 hours per cow per year to a high of 23.60 hours per cow per year.

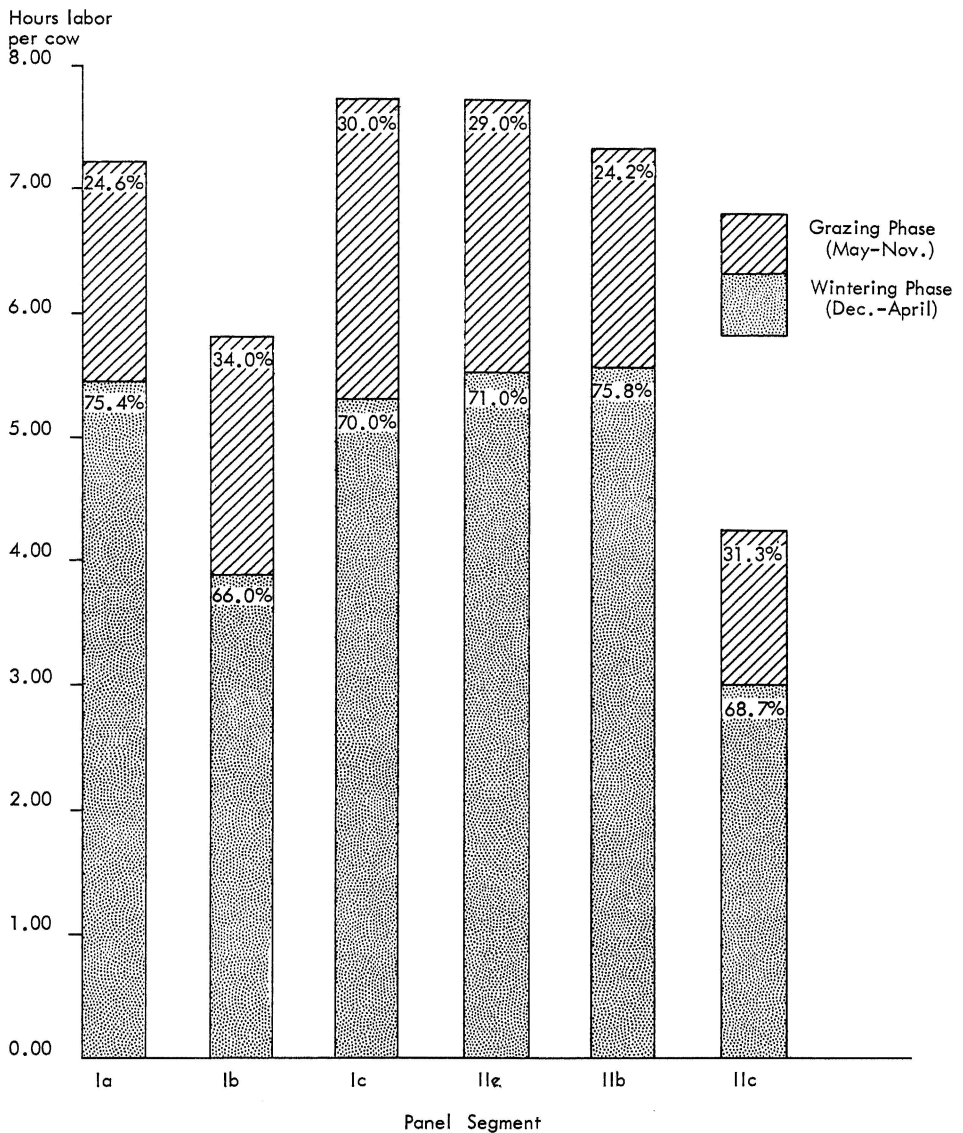


Fig. 4. Per cow labor requirements distributed by feeding phase as reported by 132 cooperators in six panel segments.

SEASONAL LABOR REQUIREMENTS

The labor requirements per cow for the year are divided into a grazing phase and a wintering phase in Figure 4. The requirements as reported by each panel segment are shown.

The wintering or roughage phase for most cooperators began in December and extended through April. There were, however, a number of cooperators who moved cattle to pasture completely by the first of April. Some also started feeding hay and silage in November.

Hours labor
per cow

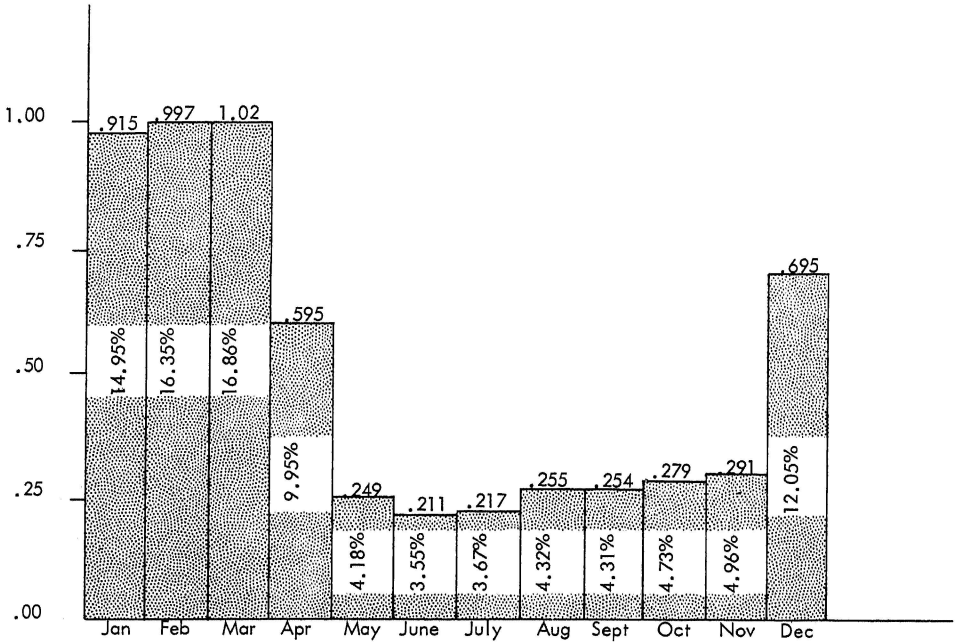


Fig. 5. Per cow labor distribution by months as reported by 132 cooperators.

MONTHLY DISTRIBUTION OF LABOR

Figure 5 is a distribution of the total labor requirements per cow on a monthly basis. One half of the total labor requirements came in January, February, and March. Feeding roughages and watering required a large part of the time spent during these three months. Checking and observing were the "major time consumers" during the summer months.

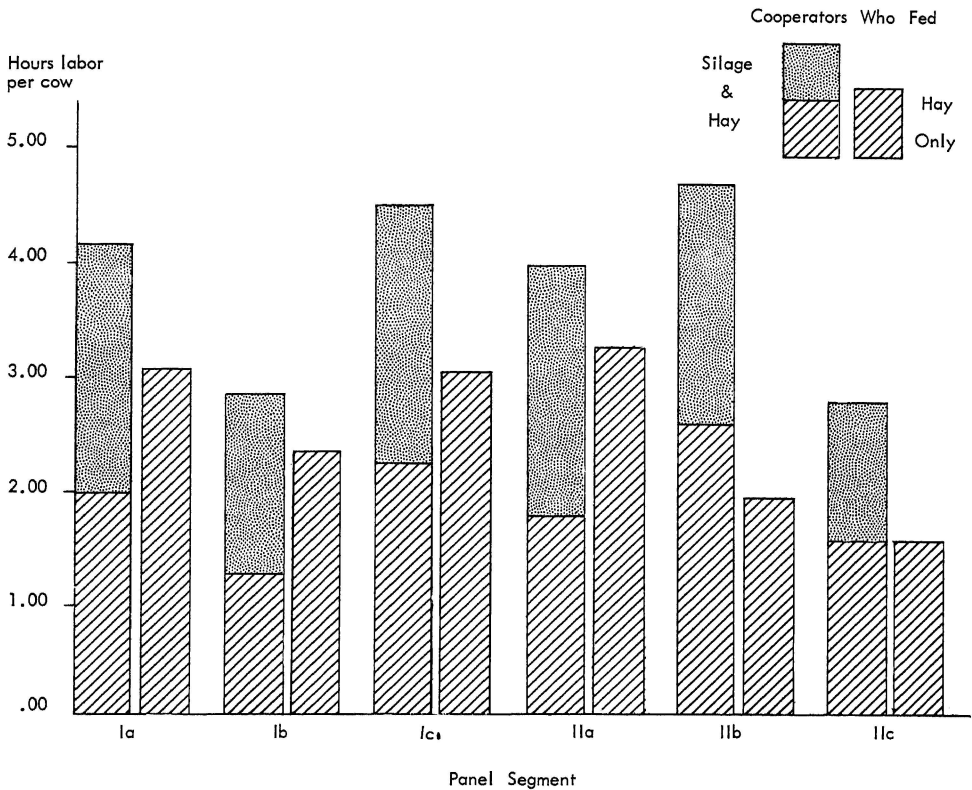


Fig. 6. Labor requirements per cow for feeding roughages by cow owners who fed both hay and silage as compared to those who fed hay only.

LABOR REQUIREMENTS FOR FEEDING ROUGHAGES

Cooperators who fed both hay and silage spent considerably more time feeding roughages than did the cooperators who fed hay only. The additional time required to feed both hay and silage is shown for all panel segments in figure 6.

TABLE 2
 PERCENTAGE DISTRIBUTION BY JOB OF TOTAL LABOR REQUIREMENTS OF
 CATTLE HANDLED UNDER TWO DIFFERENT MANAGEMENT SYSTEMS
 MO. BEEF COW RESEARCH PANEL, 1963 RECORDS

CHORE LABOR:	Full Fed* Weaning To Market	Wintered* And Then Full Fed
1. Feeding Hay	15.3%	13.3%
2. Feeding Silage	2.3	20.3
3. Other Feeding: Grain, Suppl., Salt, etc.	42.9	34.3
4. Watering	11.3	3.4
5. TOTAL CHORE LABOR	71.9%	71.5%
OTHER LABOR:		
6. Checking & Observing	.0	.1
7. Surgical, Pest & Disease Control	1.5	3.2
8. Sorting, Mov., Weigh, & Haul Cattle	1.4	3.5
9. Feed Hauling & Grinding	20.2	15.8
10. Moving, Repair & Upkeep of Equip.	.3	2.3
11. Repair of Fences and Cattle Bldg.	2.0	.7
12. Bedding & Manure Hauling	1.5	1.2
13. Buying & Selling Cattle	.0	1.0
14. All other labor	.6	.3
15. TOTAL OTHER LABOR	28.1%	28.5%
16. TOTALS ALL LABOR	100.0%	100.0%

* Data reported by 14 cooperators.

** Data reported by 15 cooperators.

LABOR REQUIREMENTS FOR CATTLE

FEEDING ENTERPRISES

Description of Enterprises

Several cooperators in the Beef Cow panel also sent in labor records on cattle other than their beef cow herds. Sufficient records were available from 29 cooperators to allow group analyses of two different management systems.

One group of 14 cooperators placed their calves on full feed immediately after weaning. The length of the feeding period by these cooperators varied from 3 1/2 to 13 months. Another group of 15 cooperators wintered their calves before placing them on full feed in the spring. The length of time these calves were kept after weaning varied from 7 to 12 months.

The data in tables 2 and 3 include records kept on the 1962 calf crop from January 1963, until these calves were sold later in the year, and also

TABLE 3
SUMMARY OF PER HEAD LABOR REQUIREMENTS UNDER TWO DIFFERENT
MANAGEMENT SYSTEMS AS REPORTED BY 29 COOPERATORS
MO. BEEF COW RESEARCH PANEL, 1963 RECORDS

FEEDING PERIOD	FULL FED - WEANING TO MARKET *				WINTERED AND THEN FULL FED **			
	Chore Labor	Other Labor	Total For Month	Cumulative Total of All Labor	Chore Labor	Other Labor	Total For Month	Cumulative Total of All Labor
	(hours)	(hours)	(hours)	(hours)	(hours)	(hours)	(hours)	(hours)
September	.455	.166	.621	.621	.301	.238	.539	.539
October	.435	.097	.533	1.154	.452	.148	.600	1.139
November	.473	.114	.587	1.741	.414	.297	.711	1.850
December	.451	.090	.541	2.282	.527	.147	.674	2.524
January	.511	.150	.661	2.943	.431	.093	.524	3.048
February	.470	.149	.619	3.562	.413	.095	.508	3.556
March	.455	.236	.691	4.253	.469	.122	.591	4.147
April	.355	.174	.529	4.782	.345	.131	.476	4.623
May	.363	.213	.576	5.358	.244	.132	.376	4.999
June	.329	.178	.507	5.865	.242	.149	.391	5.375
July	.382	.222	.604	6.469	.264	.179	.443	5.818
August	.420	.205	.625	7.094	.292	.232	.524	6.342

* Data reported by 14 cooperators

** Data reported by 15 cooperators

records kept on the 1963 calf crop until January 1, 1964. Records on both of these calf crops were necessary to provide information for a complete production cycle.

Percentage Distribution by Jobs

Table 2 shows a percentage breakdown of the time required by the two management systems among the several jobs performed.

Chore labor required the same percent of total time for both groups. As might be expected, feeding of grain and supplement, along with feed hauling and grinding, required a larger percentage of the total time for the full-fed group than for the wintered and full-fed group.

Summary of Labor Requirements

Table 3 shows a summary of the labor required per head for each month. The total labor is divided into "chore" labor and "other" labor. Also, beginning with the month of September, each month's labor requirement is added on to the previous total to give a cumulative total labor requirement

for any particular month. For example, those cooperators who weaned their calves the first of September and put them on full feed spent on the average .621 total hours per head for September, .533 hours for October and .587 hours in November, giving a three-month total of 1.741 hours per head.

Records kept during 1964 on cattle other than beef cows will provide information for a much more detailed labor analysis of various management systems.

SUMMARY

This study on the labor requirements of Beef Cow herds is one of only a few that have been made in this area of research.

Previous standards on labor requirements for beef cows have ranged from 20 to 40 hours per cow per year. The results from the 1963 data in this study, as well as data from a recent study in Cooper Co., indicate that in future planning a much lower labor requirement per cow may be in order.