MINNESOTA FARM MANAGEMENT SERVICE NOTES

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Farm Labor

How long a day does the farmer work? How much labor does the average farmer hire? How many hours annually are required to operate a farm? Much light is thrown on these and other questions concerning farm labor by data from the statistical routes. The farms on the route in Steele county are typical of the dairy section of central and southeastern Minnesota, and those in Cottonwood and Jackson counties of the corn, beef cattle and hog farms of southwestern Minnesota. In fact as far as labor conditions are concerned they are typical of most of the diversified farming sections of the state. These particular farms average 184 acres in size of which 133 is in crops.

The following table shows the average length of work day on these farms as compared with twenty years ago in nearby counties with similar types of farming. It is quite evident that even with tractors, milking machines and other labor saving machinery the farmer is working a longer day than he did fifteen or twenty years ago. The dairyman has lengthened his day even more than have other farmers.

County	Year	Hrs. per man per day	
		Week Day	Sunday
Steele	1920-23	11.3	6.0
Rice	1902-07	8.9	3.6
	Increase	2.4	2.4
Cottonwood & Jackson	1920-23	10.0	4.4
Lyon	1902-07	8.7	3.1
	Increase	1.3	1.3

These hours are computed on the basis of every day on which these men did any farm work at all. Obviously there are some days during the year when on account of weather interference, sickness or personal business, the farmer's day is much shorter. These days must be offset by longer hours at other times to maintain these high averages. One man averaged fifteen hours per week day for a whole month and another 13.2 hours per week day and 7.6 hours per Sunday for an entire year. Of the whole group 13 per cent worked less than 9 hours per day, 13 per cent 9 to 10 hours, 23 per cent 10 to 11 hours, 35 per cent 11 to 12 hours and 16 per cent over 12 hours. Over half these farmers averaged more than 11 hours of labor per working day thruout the year.

Not only is the farmer's work day long but holidays are few and far between. For the 222 man years covered by these data the average number of holidays was 4.6 week days and 1.2 Sundays per year. Some of this time was spent attending agricultural fairs and taking trips that combined business and pleasure. Twenty-five per cent of all these men never had a single day during the year during which they did no farm work. Thirty per cent never had a week day entirely to themselves and 44 per cent did some work every Sunday thruout the year.

An average of 8895 hours of man labor was expended annually on the Steele county farms and 5771 hours on the others. Eighty per cent of the labor was furnished by the farmer and his family and the balance was hired. Sixty-two per cent of the labor on the dairy farms was expended on livestock, 27 per cent on crops and 11 per cent on miscellaneous work. For the other farms these figures were 53 per cent, 34 per cent and 13 per cent respectively.

G.A.P.

Cost of Farm Labor

Wages of farm labor in Minnesota the past year varied from $35.00 to $50.00 per month with board for men hired by the season or year. On the statistical route farms the average cost of boarding farm help including room rent and laundry was approximately $25.00 per month. On these same farms the average hours worked per month by a hired man was 300. The following table indicates the cost per hour of labor at different wage rates.

Cash wage per month	$35	$40	$45	$50	$55	$60
Value of board furnished	25	25	25	25	25	25
Total cost	$60	$65	$70	$75	$80	$85
Hours worked	300	300	300	300	300	300
Cost per hour	20¢	22¢	23¢	25¢	27¢	28¢

In actual practice a somewhat higher rate of cash wages is paid during the crop season. This, however, has little effect on the cost per hour of labor during those months since the men work enough longer hours to offset this increase in wages.

G.A.P.

Wages in Relation to Farm Products

About one-half of the total cost in producing corn, one-third in producing small grains and one-fifth in producing hay is labor. Generally speaking it is unwise to hire labor unless the product produced by it is worth more than the labor costs. Since 1919 the products produced on farms have had a lower purchasing power for labor than they had from 1913 to 1919. From 1913-1919 prices of farm products rose in advance of farm wages and from 1919-1924 they fell in advance.

Table I. The Amount of Farm Products Required to Pay a Months Wages of Hired Labor in Minnesota 1913-1924

	'13	'14	'16	'18	'20	'22	**'24	'13-'24 avg.
Acres corn	1.4	1.6	1.2	1.1	3.5	1.9	1.2	1.5
" wheat	2.3	2.5	2.7	1.1	5.4	2.5	1.5	2.2
Lbs. butter	94.8	95.7	106.5	100.2	117.6	94.6	93.4	99.0
*Lbs. pork	346	346	344	270	482	380	574	354
* " beef	352	332	354	323	503	397	446	375
*Doz. eggs	126	125	127	105	129	118	93	117

*Chicago prices
**Based on preliminary estimates

The most outstanding year in the amount of products required to purchase a month of hired labor was 1920. It required over three times as many acres of corn to pay the hired man in 1920 as it did in 1918 and over twice as much as the average for the entire period. Wheat shows even wider variations. The acres of wheat in 1920 required to pay a month of hired labor was two and one half times the average for the period. Livestock and livestock products do not show such a wide variation in the amounts required to pay for labor. More beef, butter and eggs were required to purchase a month of labor in 1920 than at any other time, altho nearly as many eggs were required in the period from 1913-1916. More work was required in 1924 than in any other year. While this figure does not cover the entire year of 1924 it is certain the amount will be greater in 1920 which is the next highest year.

Table II. Changes in Ratio of Farm Labor Supply to Demand, Wages and Purchasing Power of Farm Products for Labor

	'13	'14	'15	'16	'17	'18	'19	'20	'21	'22	'23	'24
Wages per month -	$28.90	28.70	28.80	33.00	39.00	47.10	53.70	67.00	37.00	35.00	37.00	42.00
**Purchase power of all farm products -	100	103	101	108	132	124	112	96	80	90	87	86
*Farm labor supply to demand -	-	-	-	-	-	78	83	67	105	116	92	104

*No data previous to 1918
**U.S.

The ratio of supply to demand means that for every 100 farm jobs in 1918 there were 78 men to fill them. In 1920 for every 100 farm jobs there were but 67 men. This accounts for the extremely high wage of 1920. In 1924 for every 100 farm jobs there were 104 men. These figures are based on April estimates of each year.

Farm wages show a continuous increase up to 1920 since which time there has been some decrease. Last year the wages averaged about five dollars more per month than in 1923. The amount of farm labor available and the probable price for 1925 is bound to have some effect on the plans of the farmer in 1925. It is impossible to tell accurately what the supply or price is likely to be. Employment agencies predict that due to the activity in construction work that it is not likely there will be more than the normal supply of labor. One can safely figure on paying in the neighborhood of $50 per month for farm labor in Minnesota during the cropping season of 1925.

L.F.G.

Saving Man Labor

Since horse labor costs less than man labor it is well to consider seriously the possibilities of replacing some of the man labor with the cheaper horse labor. Some of the ways this can be accomplished is by the use of larger power units.

One man with two horses and a 14" plow will plow an acres in 4½ hours. The same man with three horses and a 16" plow will plow an acre in 3.3 hours. Give him six horses and a 14" gang and he will plow an acre in 1.7 hours. At 20 cents per hour for man labor and 10 cents for horse labor, the labor cost per acre with the two horse hand plow is $1.80, with the three horse sulky plow $1.80 and with the gang plow $1.36. The same man with two horses and a ten foot harrow will cover 19.3 acres per day at a cost of 20.6 cents per acre, with four horses and a 20 foot harrow he will cover 44 acres at an acre cost of 13.6 cents. With a two horse riding cultivator, corn planted 3'8" a man should average for the three cultivations 16 miles per day. This makes seven acres per day. The labor cost per acre would be 71 cents. With a two row cultivator the capacity would be easily increased 90 per cent, which would be 13.3 acres at a cost of 45 cents per acre.

While there is a very definite saving in cost by using the larger power units perhaps the greatest saving is in time. Getting the work done in less time often influences the yield and gives more time to be put on other jobs. It is of course impractical to use larger power units on small acreages since the saving in cost will not justify the added investment in machinery and power. There are, however, many places where large power units can be used at a very great saving.

Much labor in caring for work horses during the summer would be saved by providing a yard near the barn where water and a rack for hay with feed boxes around it and a rope with snap to tie each horse while eating grain. They are then released for the night. The grain in the morning is fed in the barn where they are harnessed for work. This saves much of the currying and barn cleaning and the horses do better. Since horses are easier to get and less trouble to board and care for than hired help, it might be well to consider an additional investment in horses in place of hired help. They can be sold in the fall. Tho they do not bring the purchase price they may have saved more than the difference by replacing expensive and inefficient help.

One of the big items of chore labor on some farms is the carrying of water or bringing the stock to and from the water supply. This is a job that must be done every day and generally three times a day, and at a time of the year when stock require the most water and labor is most expensive. It is often possible to save much of this labor by piping the water to nearby yards or pasture lots. For this purpose 3/4 inch black pipe is cheap and can be laid in a shallow furrow which keeps it out of the way. Unless it is taken up in the fall a union should be placed at the low point in the line for the purpose of draining before cold weather. By keeping water constantly before the stock the increased production often pays for the installation to say nothing of the labor saved.

It is often possible to save much labor by using livestock to harvest crops. A field of corn to turn hogs in during early fall when corn is hard to pick and other farm labor is crowding saves many hours of labor and the hogs do better when handled in this way.

In many cases sheep can be used in place of a lawn mower to keep the lawn cut and the premises cleaned up.

L.B.B.