Time Record of John Jones — Week Ending July 24, 1915

At 16½ Cts. Per Hour	MONTH	DAY	APPLES BEARING Prun.	Spray.	Cultiv.	Thin.	Harv.	APPLES YOUNG Cultiv.	Spray.	Prun.		Hoeing Tobacco	Hoeing Beans		Picking Cherries		Drawing Hay			Expenses	Develop.	Total for Day
			Hrs.	Hrs.	Hrs.	Hrs.	Hrs.	Hrs.	Hrs.	Hrs.	Hrs.	Hrs.	Hrs.	Hrs.	Hrs.	Hrs.	Hrs.	Hrs.	Hrs.	Hrs.	Hrs.	Hrs.
Monday	July	19													10							10
Tuesday	"	20													10							10
Wednesday	"	21											10									10
Thursday	"												7½				2½					10
Friday	"												10									10
Saturday	"	24										8	2									10
TOTAL HOURS												8	29½		20		2½					60
AMOUNT												1.32	4.87		3.3		41¼					9.90

(Fig. 2)

LABOR

1915 Week Ending		Hoeing Beans Hrs.		Hoeing Tobacco Hrs.		Picking Cherries Hrs.		Drawing Hay Hrs.	
July 24	John Jones	29½	$4.87	8	$1.32	20	$3.30	2½	.41¼
July 24	S. Brown, etc.								
July 24	S. Green, etc.								
July 31	John Jones, etc.								

(Fig. 3)

RECEIPTS

1915		Total Receipts	Bank Deposit	Cabbage	Potatoes	Apples	Straw-berries	Cherries	Corn
Dec. 14	J. Jones	$5.50			$5.50				
Dec. 14	T. Brown	21.9			9.60	$2.00	$8.95	$1.35	
Dec. 15	Watts & Co.	752.72							
Dec. 16	Bank		780.12						

(Fig. 4)

duction. It may be possible to institute certain lines of farming where the grain and fodder grown can be marketed through some class of live stock with considerable profit, over and above the market price of that product. However, the advantages which accrue from this system are not so great if the scheme makes such demands upon labor that production suffers. Production is the great essential in farming, but hand in hand with it goes the marketing of the product. The two should be so organized as to establish an equilibrium between production and distribution so neither will suffer. Everyone can not feed steers, but steer-feeding is at example of how labor should be distributed throughout the months of the year. During the summer crops are produced and the winter months are passed in feeding the product to the cattle and thus disposing of it.

BUYING AND SELLING.

The average agriculturist has not time to become a first-rate business man. Consequently, he should take advantage of every institution, co-operative or otherwise, through which to sell his product. If there is a co-operative society in the community, of good standing, and managed by a reliable man, it is usually advisable to distribute through that organization. Where a farmer has special markets of his own, it may be well to sell through them or to them, but here again too much time should not be wasted in catering to those markets. In other words, the production end of the business should not be neglected. Even if an organization in the community does procure for the farmer a slightly smaller price than could be obtained in some special market, it would be worth his while considering it. If, by the manager of the association, taking the responsibility as to the details connected with the transaction, time can be saved that may even up the price and make the profits as great as they otherwise would be. The same principle applies to the buying. Goods which are used in any quantity should be bought in a wholesale way.

IMPORTANT FACTORS ONLY MENTIONED.

Some system of filing, or preserving letters and accounts, will save time and annoyance. Use machines and mechanical devices where possible. Farm implements and machinery should be carefully inspected, oiled, nuts tightened, and repairs made, before going to the field. Each man should operate a large implement, drawn by three or four horses, wherever practicable. Provision should be made for some job during rainy days, or when something goes wrong. Distribute the labor as much as possible throughout the year; have something profitable to do in winter. Watch the leak-holes and manage so there will be no by-products go to waste; pigs, chickens and such prevent wastage. Sell at a good deal, but be careful about purchasing. Keep the men satisfied and interested in the work, and pay them according to merit. Reduce the depreciation on equipment to a minimum.

More Analysis of Hill-Grown and Drill-Grown Corn.

Many readers interested in growing corn for silage purposes will probably remember an article which appeared in these columns in the issue of December 16, 1915, entitled "An Important Experiment With Corn." The subject matter of that article dealt chiefly with the growing of corn thickly in drills, versus planting it in hills. The analysis of the types of corn thus grown at Weldwood in 1915 was given, and a few remarks printed as to the cultural methods employed. Since that time the silage resulting from both the hill-grown and drill-grown corn has been fed, and the silage has been analyzed by Professor R. Harcourt, of the Ontario Agricultural College. A great number of readers evinced no small amount of interest in the test as previously reported. We herewith publish the results of further and final comparisons of these two samples of corn. The work was done both in a practical and scientific manner, namely in the chemical laboratory of the Agricultural College, at Guelph, and in the stable at Weldwood.

A brief resume of the former report may be of value here before stating final results. Corn was planted in the spring of 1915, in hills and in drills. The drills were three feet apart and 50 lbs. (almost a bushel of shelled corn) were sown per acre. The corn grew very thick in the rows, so thick in fact that it could not produce cobs of any size or in any quantity. The other part of the field produced hill-grown corn planted with the check-row planter in hills spaced 3 feet 6 inches by 3 feet 2 inches, or 42 by 38 inches apart. From three to five stalks were produced in each hill, and cobs developed which arrived at a fair degree of maturity for silage corn. On September 28 the corn was cut, both the hill-grown and drill-grown. Thus both samples grew for the same number of days, and had equal opportunity to mature. So far as fertilization and cultivation were concerned, both were treated alike. It was a poor season to work in corn on account of the excessive moisture, but one part of the field was kept as clean as the other, with the same expenditure of labor. No partiality was shown either crop in any way. The purpose was to ascertain, if posssible, the most profitable way in which to grow silage corn, and learn whether it is necessary to produce cobs in order to get the same amount of feeding stuffs and maturity. The drill-grown corn far out-yielded that grown in hills. The latter was a good sample, as people generally look upon silage corn, but that grown in drills possessed very few cobs, and what did develop were small. The analysis of the green corn revealed the percentages of the principal constituents. This analysis was made by Professor Harcourt, and it is here reproduced.

ANALYSIS OF CORN

	Pro-teids	Mois-ture	Ash	Fat	Fibre	Carbo hydrates
Drill-grown	5.71	6.22	4.81	2.73	22.12	58.41
Hill-grown	8.74	6.89	5.39	2.82	23.21	52.95

Protein, carbohydrates, fats, and ash are the chief ingredients of any feed stuff, from the feeding point of view. In this regard, it will be seen, there was little difference, pound for pound, in the two samples. In the aggregate, however, the drill-grown corn was slightly superior, for it contained 71.66 parts of these substances to 69.90 parts in the hill-grown product. A study of the analysis furthermore shows that both samples did acquire, or attain, to practically the same degree of maturity.

This was only one phase of the experiment. The corn was then ensiled in the usual manner, but the two crops were kept separate in the silo, and designated in such a way that the silage could not be mistaken. It was known exactly as the silage was fed on which part of the field the corn grew. The corn grown under both systems made excellent silage, and no difference was noted in the way it was eaten, or in the results upon the cattle consuming it.

Samples of the hill-grown and drill-grown silage were then sent to Professor Harcourt for laboratory analysis. The results of this test are revealed in the following table:

ANALYSIS OF SILAGE

	Mois-ture	Ash	Fat.	Fib.	Albd. N.	Am-ides	Carbo hydts.
	%	%	%	%	%	%	%
Hill-grown	6.19	7.55	5.01	19.82	4.64	3.86	52.93
Drill-grown	5.36	5.20	5.05	19.92	4.83	3.86	55.78

The totals for protein, carbohydrates, fats and ash are practically equal in the two cases. Albuminoid nitrogen and amides together make up the protein. The first mentioned is the desirable form, but there is always a breaking down in the silo into the less valuable forms known as amides. Both in carbohydrates and albuminoid nitrogen the balance swings in favor of the drill-grown corn. In fact, the two analyses, that of the corn and this one of the silage, show figures that argue in favor of the corn grown in drills. It should be stated, however, that the sample of drill-grown silage happened to have a few pieces of cobs scattered through it. A little corn was produced on the stalks and it so happened that some pieces were in the sample. Yet that has no significance, for the corn grown in drills and sent away for laboratory test was entirely devoid of cobs. In spite of that, it analyzed quite as high in food constituents as did the well-cobbed corn grown in hills.

From our experience with the two methods of planting, we are led to believe that greater tonnage can be produced in drills than in hills, under conditions as they exist at Weldwood. The analysis also indicated that corn planted thickly in drills, so it cannot cob, will become just as mature as hill-grown corn, if allowed to stand the same number of days. The food constituents are stored in the leaf and stalk instead of in the cob. The outcome of the test has indicated that cobs are not necessarily the only evidence of maturity. Corn may be matured from the viewpoint of the character of its constituents, yet have no cobs whatever.

This is one year's test. It was a peculiar season. Other conditions might reveal something new. However, in the light of present-day knowledge regarding corn, we cannot see how the conditions which change from year to year, such as climate, could alter to any appreciable extent the relative analysis of the two samples. It might, of course, alter the yields.

There is an opportunity in this field to determine facts that will be valuable to farmers. Corn is an increasingly important crop and after all not too much is known regarding it.

Piles Manure to Heat in the Field.

EDITOR THE FARMER'S ADVOCATE:

There seems to be a keen interest in the question of spreading manure at this time, and it is certainly very interesting to note the difference of opinion expressed. No doubt, each writer expresses his convictions from personal practice and its results. But seeing there are so very many things to be considered, it is almost impossible for all to follow in the same train Nevertheless, for those who are willing to learn, there still remains considerable useful teaching, and the many letters appearing in the FARMER'S ADVOCATE on this subject undoubtedly prove helpful to those who are ready to give a trial to what may be to them a new system. It would require too much space for me to give all my experience on this matter, but as briefly as possible I will state what I have observed, from at least three different methods, on fairly large farms, each farmer looking forward chiefly to his corn and roots, placing his manure after his own plan for these crops particularly. The first would leave his manure in the barn-yard till after harvest, then draw and spread on the old meadow that is to be the corn and root field and plow it deeply. The manure would be very rotten and heavy, and, in spite of the summer heat, his manure piles retain a splendid moisture and he almost always has a field of corn and roots that gives him much satisfaction and is certainly a credit to him. The second believes in spreading by hand on his corn field during the winter and plows the manure under in spring; but this plan, as I saw it, was far behind the preceding one and the results were not nearly so good. This man planted in hills; the other in drills. I may say that the first farmer uses a manure spreader, which