

Report Shows Tractor Offers Only Solution to Farm Labor Problem

Tractor Improves Yield and Grade of Crops

Modern Machinery Must Replace Horse and Man Power on Farms

Modern machinery must replace horse and man power on farms. The progress that has been made in the scientific cultivation of farm lands and harvesting of crops within the span of the last few generations, it is evident, from a study of the statistics recently issued by the United States Government, and from other sources, is that the farming industry is still far behind many other industries in the extent to which it has adopted time-saving and labor-saving machinery.

endless round of heavy labor, when they can earn a living with so much less effort in some other calling. Nor can we blame them for this. The whole trend in modern industry is toward the elimination of drudgery. Machines have improved the production and reduced the working costs in practically every industry to such an extent that individuals who have been tardy in adopting the improved methods of production have been forced to the wall by their progressive competitors.

distributed, especially in busy spring season of work. (c) Better distribution of labor affords opportunity for better tillage of the land. The tractor may increase efficiency on the same acreage in two ways. It may do more thorough tillage done at the proper time, or through tilling the land more thoroughly. Eighty-seven per cent. of the farmers reporting on this question stated that in their opinion they obtained increased crop yields due to better tillage because of the tractor. (d) The average crop acreage increases due to the tractor was 12.4. It was found that when any crop increase was made, it was usually large, the average being 19.3 acres for the farms increasing. This is true probably because the farmer rents or buys a large number of acres when he increases the size of his farm, rather than increasing in small lots.

BARON BYNG STUDIES THE FORDSON



Baron Byng and Lieut. Col. Cockshutt, Lieutenant-Governor of Ontario. Governor-General is Much Interested in Work of Fordson Tractor.

disposed of this spring, the best bringing as high as \$350 a team. In most cases there is only one man on the farm. We will have to exchange work, and the women and children will be helping again.

menting horse power. The factors that effect the practicality of the tractor as a means of farm power may be grouped and discussed in the answer to three general questions:

and depreciation costs. The average cost of repairs per year on 248 farms was \$11.12. This figure includes cost of service man, and overhauling but not time of operator in effecting chores and repair work on the tractor. The average estimate of life of the tractor was 7.97 years.

Many farmers who are regularly employed. Many farms are changing hands mostly on account of having been bought when prices were high or because of the low supply of labor.

1. Are the farm and farmer adapted to the use of tractor power? 2. What factors in the management of the farm must the tractor affect to justify its purchase? 3. What are the costs of operating a tractor?

During the past two years many owners of tractors, including former students in Farm Mechanics College, have kept weekly records of tractor performance and expense. A report of these records is given in Table 1.

higher taxes and other expenses, and lower prices for farm products. Many farmers and their wives are working much too hard of necessity, and yet they are not making many long complaints. They keep pegging away, exercising a good measure of skill and economy of means and time.

Table 1. Tractor Performance Records on Various Operations Per 10-Hour Day

Table with 3 columns: Operation, Fuel Cost, and Other Costs. Rows include Plowing, Harrowing, and Threshing.

Farmers who were in the habit of hiring help are doing without it by use of improved machinery and an exchange of help with their neighbors.

The tractor in order to be a profitable investment on the farm must accomplish some one or more of the following factors of farm management:

The results of the three major tractor operations, namely, plowing, harrowing, and harrowing, so far as acreage accomplished and fuel consumption are concerned compare very closely to the results secured by means of a survey by questionnaire on 362 tractor owners in the southern portion of the State of Michigan.

The plan for production this year is about the same as last, but in all probability soil moisture will interfere seriously with the plan. There is not enough cultivation done in the fall.

(a) Decrease the number of horses required. (b) Effect better tillage of the acreage cultivated. (c) Increase the number of crop acres.

Whether or not the tractor owner reaches or exceeds these figures will depend mainly upon two factors: (1) the condition of the tractor, and (2) the nature and topography of the soil.

There have been many farms made this spring as a number of good farmers are quitting the land because help is so scarce.

(d) Decrease the amount of hand labor. (e) Effect better tillage of the acreage cultivated. (f) Increase the number of crop acres.

In order that the tractor be kept in the best possible condition it is necessary to allow a sufficient amount of time in caring for it. It is estimated that one hour daily is to do the tractor chores adequately. These chores should include filling tanks, lubricating all wearing parts, and making necessary adjustments.

Not only hired help, but the farmers' boys themselves are turning to other pursuits, because, reasonably enough, they cannot see the sense of staying on the farm where old-fashioned methods are employed and life is an

ally every trans-continental line, affording unusual shipping facilities. At River Rouge, with a plant area of 1,200 acres, the company besides having the largest foundry in the world, operates its own blast furnaces, machine shops, body plant, saw mill, coke ovens, cement plant, paper mill, power plant, locomotive repair shop and the Fordson Tractor plant.

Fourth—Creosote, a chemical in great demand as a timber preservative, especially for railroad ties.

Eight Millionth Ford Marks Epoch

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only recently, inauguration of the weekly purchase plan opened the way to automobile ownership for additional millions of people.

The parent plant of the company in Highland Park occupies nearly 900 acres, of which 123 are under roof. Here are the general offices, the Detroit sales branch, the boys' industrial school and the world's largest individual automobile plant.

Fifth—Gasoline and kerosene, of which a maximum of 13 gallons will be recovered per ton of coal, and which contain all the properties of true gasoline and kerosene.

The first car manufactured by the Ford company was on the road in June and sold early in July, 1908. In the initial year, 1908-1909, the company produced 1,768 cars and each year has seen a steady expansion until in 1923, production totaled 1,851,213 and this year it will pass the 1,900,000 mark, a figure, which it is estimated, will equal if not exceed, the combined companies in the United States.

There are also manufacturing units at Hamilton, O., Northville, Troy, N. Y., Iron Mountain and several points in and near Detroit.

Sixth—Lubricating oils and grease, which will not be taken from the oil remaining after the recovery of gasoline and kerosene, at this time but which may be utilized later for burning as ordinary fuel oil.

Controls Raw Materials Under its present expansion program, the company is carrying out on a larger scale than ever before its policy of affecting every manufacturing economy possible. Thus, costs are cut to the minimum all along the line, from primary raw materials to finished cars, trucks and tractors.

Output Now 6,700 Daily There are 34 branches of the Ford Company in the United States of which 28 are assembling plants. These have all been improved and enlarged within the last year and today are producing cars and trucks at the rate of 8,700 every eight-hour working day.

Not only is the Ford Motor Company the greatest automobile manufacturing institution in the world today, but it stands alone, a stupendous industrial marvel, into every activity of which there permeates the personality and genius of its founder and guiding spirit, Henry Ford.

It has its own coal mines in West Virginia and Kentucky and iron ore mines and forests in northern Michigan.

There are more than 9,000 Ford dealers in the country and more than 15,000 authorized Ford service stations, making a total of more than 34,000 points of contact with the motoring public.

Will Distill 400 Tons of Coal Daily. The installation shown in the illustration is for a plant to handle 400 tons of coal per day, but provisions have been made throughout for a plant to handle 1,400 tons of coal daily, so that additional units up to this capacity can be quickly

CHART PROVES THAT FORD CARS AT 30c POUND COST LESS THAN STEAK

1914 Dollar Value Today Costs 69c in Ford Products

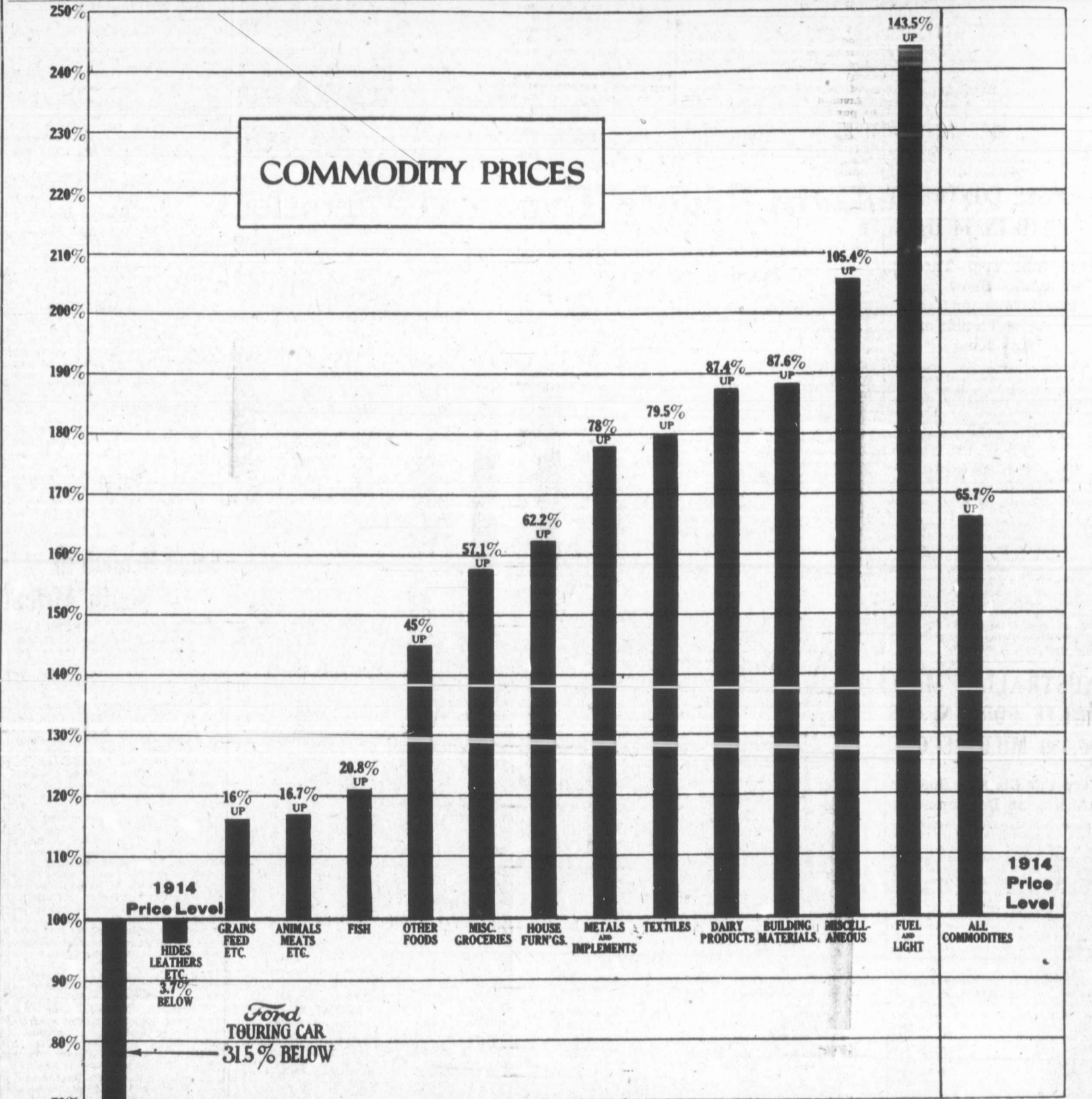
In the last issue of the Ford News we made reference to the fact that the Committee on agriculture conditions saw fit to honor the Ford car as a necessity by investigating its price. The theory advanced by certain witnesses was that if there were no tariff a Canadian could obtain a Ford car at the price in the United States which is necessarily lower than in Canada on account of the decreased cost brought about by the huge production in the United States. It was really an attack on the tariff and not on the prices of Ford cars in Canada.

The chart below shows the price of Ford cars compared with other commodities listed by the Dominion Government as making up the family budget. Or another way of looking at it: The Ford products that cost you a dollar in 1914 cost you sixty-nine cents today. See the comparison with other commodities listed below and realize that conditions may force Ford to increase in price also, unless you and others who desire motor cars purchase now so as to enable quantity production to be maintained.

Table comparing 1914 and 1923 prices for various commodities. Categories include Grain, Animals, Fish, Dairy, Fuel, etc. Ford Touring Cars are listed at 69c in 1923 terms.

NEW RECORD MADE BY FORD, DETROIT

Detroit, Mich., July 14.—The Ford Motor Company is now on its way toward the 2,000,000th motor. It became known today when it was announced that Motor No. 2,000,000 went off the assembly line at the Highland Park plant Wednesday night, July 11, establishing a new million production record. Under its greatly increased manufacturing capacity the company was able to manufacture the last million motors in two months less time than the previous million. Motor No. 2,000,000 was produced eight months before the 2,000,000th motor passed off the assembly line which was on May 18, 1922, and nearly a year before that date, May 28th, 1921, the 5,000,000th motor was turned out. It was in 1915 when Ford Motor No. 1,000,000 was produced and under the steadily growing demand for Ford Cars and Trucks production has been mounting yearly and maintaining an annual output approximating that of all other automobile manufacturers combined.



Ford to Distill Coal in Canada

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commercial limitations, however, and only those elements which are most useful from an economic standpoint will be recovered in the Ford Plant. Briefly, they consist of the following:

the necessity for sending out of Canada a great amount of wealth to meet these necessities of modern existence.

Canada Has First Plant Within the next few months, when the plant at Ford, Ontario, is completed, Canada will have in operation the first commercial distillation of the research and development work which was carried on by Mr. V. Z. Caracristi, Consulting Engineer, and Mr. Emil Piron, chemical physicist, for the last two years in New York, and which was verified semi-commercially in laboratories in Huntington, West Virginia. It would probably have taken these gentlemen and their backers several years longer to have secured the necessary financial assistance for the installation of a commercial plant, were it not for the fact that Mr. Henry Ford had previously expressed himself as vitally interested in the complete and economical commercial recovery of the by-products known to exist in coal before its destruction by burning.

installed, to keep pace with the plant's requirements. All of the operations in Ford plants are continuous, not alone for production requirements, but in the maintenance of that accuracy which has been set up as a standard in Ford products. The low temperature distillation plant is also designed for continuous operation. The coal, lignite, or other material being distilled, is fed on a continuously travelling metal conveyor passing at the rate of approximately 25 ft. per minute through a sealed, heated chamber. The coal is stationary in relation to its carrier, and, being subjected to a "trying" action on a very hot plate, rapidly gives up its by-products in the form of gas. This gas is continuously taken off the furnace, its heavier portions condensed into a petroleum-like substance. Its ammonia recovered through a continuous scrubbing operation with water, and the gasoline remaining in volatile form being brought into intimate contact with an absorbing oil which strips the gas of its burden of gasoline. This absorbing oil is continuously distilled for the recovery of the purpose of recovering the gasoline, the gas going from this point directly to gas holders and point of ultimate consumption. The petroleum-like oil derived from the initial condensation of the gases is stored in wells, from which it is drawn and continuously distilled for the recovery of gasoline, kerosene and creosote fractions. The remaining oil is pumped to tanks and hence to point of ultimate consumption as oil fuel.

passing through a large reinforced concrete tunnel, and it is delivered by elevators and conveyors to steel storage bins of 100 tons capacity each. From these it is fed in a continuous stream one-half inch thick and eighteen feet wide to the primary distillation conveyor, and after passing longitudinally through the heating zone in the distilling oven, is dropped on a return conveyor which brings it back under the oven to a point directly under the feeders on the coal bin.

ADVERTISES FORD PARTS WITH STAPLES

This advertisement clipped from a Saskatchewan paper, throws an interesting light upon the growing extent of the public realization that the Ford car is a necessity.

Advertisement for A.H. LOEPPKY, featuring 'Genuine Ford Parts' and 'Men's Wear' with a list of items and prices.

"Ford News" is Good Tonic

"Crammed with overflowing with optimistic articles, "Ford News" published in the interests of the agricultural, industrial and social development of Canada, made its initial appearance in the month of May. The News is a good tonic to the blue and a good education to the Canadian unfamiliar with the developments which are now taking place in the Dominion."—Winnipeg Community Bulletin.