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Experiences with Gasoline Farm Power H. R. Nizon, Brant Co., Ont.

It costs me about three cents a run (6 cents a day) to pump the water and separate the milk, both of these being done at the same time with a 3 h.p. gasoline engine. One cannot say too much in favor of a gasoline engine for farm power. It is the proper thing for anyone who has milk to separate, water to pump, wood to saw, rots to pulp, and other similar work to do about the farm.

My engine has proved itself to be always dependable. It has been run for over two years now and it has given no trouble save on one occasion when we 'took it down' to clean the cylinder. The engine requires to be taken down occasionally especially if one is not careful about the grade of gasolino used. Cheap gasoline causes a scale to form on the inside of the cylinder. This scale to are not include when a good grade of gasoline is used.

The size of engine a farmer should buy will depend wholly upon the work he has for it to do. If he is located far from a mill and wants to chop his own grain, he had better get a 6 h.p. esgine. But if he only wants it for light work, to separate milk, pump water, pulp roots, saw wood and so forth, then get a 3 h.p. engine such as mine, and it will do all the work required.

The main work for my engine is to separate the milk and to pump the water. Both of these operations are performed at the same time, and in summer, when we are getting lots of milk it will pump more water than we need. In the winter time there will not be quite enough water pumped when the milk is separated. Five minutes extra run is required to pump enough water for the stock.

My engine is set right in the basement of the barn in a milk room built against an outside wall with outside window space. The drive telt from the engine runs a horizontal shaft that I had in connection with my old power wind-mill. From this main shaft the speed is reduced to a conter-shaft, from which I run the cream separator. With a friction clutch on the drive wheel of the engine we find this means of driving the cream separator to be most satisfactory.

The gasoline for our engine is kept outside of the barn, the tank being located in the ground



A Usstul Motor for Farm Work

Many uses could be found for a motor like this one on any 100_acre farm. See article on page 3 for fuller particulars of this machine.

30 feet away. While it is certainly safe to have the tank with the gasoline away from the hare, and in that position after once installed it is no extra bother, it is not necessary to install the engine in this manner. Several of my meighbors have their engines right in the barn with the gasoline tank in the base of the engine. The insurance companies do not object to this, providing the tank is filled in the daytime when there is no artificial light about which might exclude the gasoline.



The Favorite, General-Purpose Farm Power

Mr. H. R. Nixon, who may be seen in the dim background of this illustration, tells in the adjoining article what he thinks of this 3 h.p. gasoline engine, shown here as it is at work on his farm.—Photo by an editor of Farm and Dairy.

Comparisons-Hand vs. Power Sprayers W. B. Wolverton, Lincoln Co., Ont.

Power sprayers for orchard work are an allimportant consideration to the up-to-date fruit grower. The old saying, 'If a thing is worth doing at all, it is worth doing well,' applies especially to the fruit grower, who must do most thorough spraying if he wishes to get the best results.

A power sprayer, under a pressure of 150 pounds, will spray at least 1,000 gallons of solution a day, and do it thoroughly, at a cost of 35c. a day for gasoline and the wages of two men only, thereby minimizing the expense of spraying to a very small fraction of a cent a gallon.

On the other hand, the less up-to-date fruit grower, without a power sprayer, emplose two men to do his spraying with his hand pump, who if they get out 250 gallons a day have done exceedingly well for man power. The fruit grower with the hand pump, it will therefore Le seen, employs the same amount of labor as the power outfit and practically at the same expense, and only sprays one quarter of the material, and in many cases the work with the hand power is not thoroughly done. In comparison after allowing the interest on the investment for the power sprayer, one will readily see it is by far the cheaper and deeidedly the more effective.

At one time we looked upon spraying as a great nuisance. However, since we were forced by the various fungous and insect pents to spray, if we would grow marketable fruit, and we got a full equipment of power spraying machinery, we spray just as we do other orchard or farm work, and do not think anything but favorably of the work of spraying.

Alfalfa inoculation.—The good effect of inoculating the soil for alfalfa culture has been shown in connection with the State and County Farm demonstration work in Wisconsin. At Vircoua, on an alfalfa field of 20 acres, half of which was inoculated, the inoculated part yielded at the third cutting 1% tons per acre against three-quarkers of a ton where uninoculated.

Money for Underdraining Work*

When underdrained land produces, on the average, \$20 more an acre annually than nonunderdrained land, as statistics show, as well as being in a better condition to work and can be worked from two to six weeks earlier in spring, why is it that there are still in the neighborhood of five million acres in Ontario that are urgently in need of draining?

The chief reason is lack of money. Farmers tell me that they cannot produce the initial outlay necessary for drainage work. To meet this need in drainage work I would advise Farm and Dairy readers that the Legislature of Ontario has made special provision—there is a large sum of money, known as the Consolidated Revenue Fund, at a tarmer's disposal, which he can get in one or more hundreds of dollars for a term of 20 years. Each \$100 is to be paid back in sums of \$7.36 a year.

It costs on the average \$25 an acre to underdrain. Therefore, \$100 would drain four acres. This land, once it is drained, will produce \$80 more per year than before it was drained. Of this increase the farmer would pay back \$7.36 per year and have left \$72.64. Surely this is a good enough investment! In fact, it sounds too good to be true, and farmers seem as much afraid of it as they are of the proverbial gold brick.

To get this money for your underdrainage work, estimate the entire cost and make application to the township council for it. If the council approve of the loan they will pass the necessary by-law, if such has not already been passed, and they will issue debentures of the municipality to the extent of 75 per cent. of the cost of draining. The Government buys these debentures with the Consolidated Revenue Fund, and the farmer, you, may receive the money.

The money thus borrowed you are to pay back in 20 instalments—\$7.36 a year for each \$100borrowed—or one may discharge at any time his entire indebtedness, plus interest at four per cent, less amount already paid. The instalments of \$7.36 are to be paid at the same time as taxes and the farmer, you, need never feel the difference.

Farmers in Haldimand township, Northumberland Co., Ont., and in many other places are securing money for underdrainage in the way I



The Same Motor at Other Work

This illustration shows the motor as it may be used for grinding; the body has been removed and a grinding mill attached to the frame.

have explained. Why the opportunity is not more generally taken advantage of elsewhere is a mystery to me.—H. C. N.

When storing machines and tools they should be thoroughly cleaned of all cirt and rust, and the working metal parts well oiled. A coat of paint on the woodwork and metal braces will help greatly to preserve their condition.—The cost is a mere nothing. ~L. C. Smith, Peel Co., Ont.

*This article is the first of a special series that has been arranged for by Farm and Dairy to be written by Mr. H. C. Nixon, an expert on under drainage, who will from time to time instruct our readers on things worth knowing about underdrain, ing-that great money-making means of farm improvement.