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MACHINERY FOR THE LARGE FARM

"Will It Decrease Cost of Production and Increase Profits?" Is the Test in Buying a Machine or Implement-Some That Will Pay the Large Farmer

By G. H. Alford

of Agriculture and numerous agricultural colleges have compiled much valuable data from representative farmers relative to the cost of crop production, so that every farmer may now know the approximate cost of producing almost any crop he grows. The next logical step will be to analyze this cost of production to find out whether or not some of the cost items may not be sufficiently reduced to considerably affect the whole cost of crop production.

Probably the first place for initial investigation lies in the labor items of cost. This of course would involve the question of the use of larger and more efficient farm implements and machinery.

Intensive Effort on an Extensive Scale

DROF. Warren, of Cornell, an authority on farm management, has shown that the average farmer operating less than 150 acres is not making fair wages. On the other hand, farmers operating 200 acres and over are making much larger wages. It is necessary to practice intensive fárming, but it is also necessary to farm on an extensive scale in order to secure the most profit.

Farmers are rapidly beginning to realize the absolute necessity for overcoming one of the greatest obstacles to the most successful farming and are purchasing such farm implements and machinery as sulky plows, riding cultivators, hay presses, tractors, etc., for use on farms of sufficient size to make the use of such implements and machinery profitable. The prosperity of any farmer is largely determined by the kind and value of the improved farm machinery intelligently used on his farm. If the farm is large enough to make the use of such implements as the tractor, thresher, auto wagon, etc., profitable, it will usually pay to borrow money to buy such implements and machinery.

Of course farm machinery is more or less expensive to purchase. It costs something to keep machines in repair, and the capital invested is withdrawn from other uses. For these reasons the purchase of machines that are not needed for a sufficient number of days during the year is an injudicious investment of money. But on the other hand, if the machines are needed in order to enable the farmer to do efficient and economical work, the money paid for them is far better invested than it would be in a bank.

No large farmer can afford to farm without at least large plows, disk harrows, two sections of a drag harrow, a good combination planter, grain drill, binder, mower, one or two-row planter, manure spreader. thresher, gasoline engine, feed grinder, feed cutter, hay press, stalk cutter, corn harvester, a good-sized rake, corn sheller, labor-saving hay-loading and unloading tools, and numerous other implements.

It does not take a mechanic to make a farm work shop pay. Almost any farmer, by a little application, can learn enough to make it very valuable. A forge, hammers, tongs, pincher's, chisels, anvil, vise, dies for cutting threads, drills for boring holes, and numerous other tools should make up the equipment.

Place of the Tractor

THE thresher has displaced the flail; the binder has displaced the sickle and cradle; and the traction engine should displace a number of draft horses and mules on many of the large farms in the South, Many farmers now consider the tractor the build the rest of the machine around best draft horse. The average one-

THE United States Department horse farmer walks fifteen miles in breaking one acre of ground. It is not uncommon for two men with a 25-horsepower tractor to plow, disk and harrow from twelve to fifteen acres in one day.

On many of the large farms of the West it is now common for a fifty horsepower tractor to pull sixteen ten-inch plows, four six-foot harrows, and a drill for planting the seed, all at the same time. This machine does the work of many horses and men more efficiently than could be accomplished in any other manner. Small broken-up fields, even on large farms, prevent the use of such machinery, but there are thousands of farms in the Cotton Belt where traction engines, gang plows, large binders, cultivators etc., should take the place of, or supplement the use of, other implements and machin-

The auto fits into the farm work as if made for it. It does not replace the horse. The horse goes into the field in the morning and the auto carries the milk, vegetables, etc., to town, goes to the grocery for groceries in a hurry, or makes a quick dash to the machine shop for a part to repair the binder, threshing machine, or other machinery.

The large farmer should of course have a good orchard and give it attention in the way of spraying. The advantages of power spraying are many. With a power outfit, the steady high pressure that is so necessary to obtain the best results can be maintained at all times, and the ingredients of the spray tank can always be kept thoroughly mixed with the agitator.

Almost every day platform wagon scales on the large farm would save the owner dollars in cattle, hogs, hay; and other farm products should always be weighed before selling. It is an easy matter to know the yields of different crops by the use of the platform wagon scales.

Use the Typewriter

DRACTICALLY all business men and quite a few farmers use typewriters now. Every neat, typewritten letter sent out by the farmer raises him in the estimation of the man receiving it. Thousands of farmers can get good returns from purchasing a moderate-priced typewriter and learning to use it during the long winter evenings.

With the modern manure spreader one man now does the work of two men with much greater ease than formerly. More ground can now be uniformly coated with manure in one day by one man than was formerly done by two or even three laborers, and without increasing the strain on the horses.

There is no machine that is used on the farm that will do more towards helping the farmer's already over-worked wife in her duties than a cream separator, and at the same time, make and save more money for the farmer than any other implement he can buy or use on the farm.

Every year the farm implements and machinery of the South deteriorate unnecessarily thousands of dollars in value because they are left exposed to the weather. Today in fence corners and in other out-of-the way places are many costly pieces of farm machinery without cover of shelter, taking the rain and sun as they come. The paint is cracking and falling off, and rust and decay are attacking the exposed iron and wood.

It would be safe to say that one-half of all repair work on the farm is caused by lack of oil. A very successful manufacturer says, "First we lay out an oiling system and then we