

**WHY THE FARMER SHOULD HAVE TWO HORSES.**

**The One-Horse Farmer Loses by Getting Less for His Work, by Being Able to Work Fewer Days on the Farm, by Finding It Harder to Diversify and Improve His Land.**

By A. D. McNair, Little Rock, Arkansas.

IT IS easier to pay for a two-horse farm by two-horse methods than to pay for a one-horse farm by one-horse methods. This simple and direct statement will serve as an introduction to what the writer is about to say. It may be supplemented, however, by another statement, viz.: A tenant can make more profit on a two-horse farm by two-horse methods than on a one-horse farm by one-horse methods.

It ought to be unnecessary and superfluous to make such statements, because the truth of them ought to be self-evident; but as long as a large part of the work of the farm is done by one man, driving one horse and using one-horse implements, there will be need to assert and prove these simple statements.

It is to be regretted that the one-horse farmer sometimes resents the advocacy of the superiority of the two-horse farm, and even assumes that those who advocate this thing have no sympathy for the poor one-horse farmer. He assumes that the cost of a two-horse farm, plus the cost of implements, work animals, etc., that are necessary to operate it, is beyond him, and that his only chance of becoming an independent farmer is to buy a small farm, on which one horse or mule can do all the work. Or, if he is a renter and thinks he cannot pay for even a small farm, he takes the ground that he cannot pay for two horses or mules, and hence only attempts to buy one. Or again, if he owns no animal at all, but simply uses the mule which the planter furnishes, he seems content, and the planter is content, that one-horse implements shall be used.

There are very few people who pay for farms cash down, and even those farmers, small farmers especially, who buy horses and mules, pay for them out of the crop produced by these horses and mules. The poor man will buy horses or mules before he attempts to buy a farm, and he then hopes to make enough money by the work of these animals to make a first cash payment on a farm, trusting to what he can make out of the farm to finish his payments, and have his farm clear of debt. Since, then, it is customary to get credit in buying horses and mules, and it is customary to buy farms on credit, making only a small cash payment at the start, the question is whether he shall get credit for one mule or two mules—for a one-horse farm or a two-horse farm.

**The Larger Profits of the Two-Horse Farmer.**

With two-horse implements, one man can prepare, plant and cultivate twice as many acres of cotton, corn and other inter-tilled crops as he can with one-horse implements, and can give just as good treatment—even better treatment—to the larger area than to the smaller. In either case, he should not attempt to tend more acres than he can care for properly, but the point is that he can properly care for twice as many acres of crops with two-horse implements as with one horse, and can get twice the gross income. In harvesting these crops, he cannot do as well relatively as in the previous work, for if the crop is doubled, the work of harvesting is doubled or practically so. Taking all the work into account—the work before harvesting, and the work of harvesting and marketing—it is larger, of course, on the two-horse farm than on the one-horse farm, but is not nearly as much in proportion to the number of acres of crops.

The two-horse farmer, or the man who uses two-horse implements at his work, will probably raise more cotton than his family can pick, and

will have to hire some work done, but the fact is that he can pay for having some of it picked and still, on account of his larger area, get a larger net profit than the one-horse man can possibly get.

In the foregoing comparisons it is assumed that the one-horse farmer and two-horse farmer follow the same type of farming, and this is usually the cotton-corn type; but the fact is that the two-horse man can diversify easier than the other man can. If the one-horse man wishes to diversify, he is confined to fruits, vegetables, poultry and dairying on a small scale, and with feed that is bought, and he can do this profitably in proximity to markets, but the two-horse farmer can diversify along a more general line. He can raise small grains, hay, cattle, hogs, horses, mules and some sweet and Irish potatoes—a standard line of crops in which it is not so easy to overdo the market as in raising fruits and vegetables.

**Steadier Work and Better Land Under Two-Horse Farming.**

The two-horse farmer can adopt a system of diversified agriculture in which the time of men and teams is better distributed thruout the year than is possible in raising cotton and corn alone. The number of days of crop work—not miscellaneous work and lost time—for the cotton-corn farmer for a whole year does not exceed 130 to 140 days as a rule, and the number of days that the horse or mule works at actual crop work, does not usually exceed 100 days in a year, hence there is a great amount of lost time for men and teams on a cotton-corn farm, unless there is much miscellaneous work to do; which there is not for the average tenant or for the average one-horse farmer. Under a properly diversified system, however, the two-horse farmer can work 200 days in a year at actual crop work, besides a lot of time devoted to miscellaneous work, and in working a greater number of days in a year, he tends a much larger total area and gets a larger income.

The crops which may be used to diversify with, are cowpeas (at least two plantings at different dates) oats, sweet potatoes, sorghum, peanuts, ribbon-cane, Irish potatoes, and lespedeza, wherever that crop grows to a height of eight or more inches. Some, or all, of these, in addition to cotton and corn, may be proportioned in such manner as to give a uniform distribution of labor, a larger acreage per man and horse, and a larger income. Extra man labor is required at busy seasons, but the cotton farmer is used to this. The net income of the farmer over and above all expenses, rent or interest, depreciation, etc., is easily four times as much under a good diversified system as under the one-horse, cotton-corn regime.

A system of diversified farming, which includes cowpeas or other legumes, improves the land so that larger yields are obtained than under the cotton-corn regime, and provides an abundance of feed, which makes possible the keeping of more livestock. These improved yields cannot be obtained by the cotton-corn farmer unless he spends much money for commercial fertilizers. The two-horse farmer, therefore, not only tends a larger area of crops than the one-horse man but, by reason of the leguminous crops which he can harvest and feed, he can get a larger income from each acre.

**Seven Ways in Which the One-Horse Farmer Loses.**

The one-horse farmer, from every

viewpoint, is working at a disadvantage.

(1). He is forced to spend too much time on each acre of crop, because his one-horse methods limit him to a small area of crops, and in limiting his area, he limits his income.

(2). He cannot diversify to advantage in raising the standard farm crops, and thus fails to get the advantage of the larger acreage which the two-horse man can tend under his diversified systems.

(3) Neither he nor his mule is employed as many days in a year at actual work as the two-horse man is employed under his diversified systems, which is another way of saying

that there is too much lost time under the one-horse systems.

(4). It is more difficult for him to raise his own hay, corn and meat than for the two-horse farmer.

(5). It is more difficult for a farmer to pay for one mule by one-mule methods than to pay for two mules by two-mule methods.

(6). It is more difficult to pay for a one-horse farm by one-horse methods than to pay for a two-horse farm by two-horse methods.

(7). The two-horse farmer, by reason of his more efficient implements and better cropping systems, receives a larger net income than the one-horse farmer receives, and he can thus give his family a better living and more advantages.

**REDUCE THE COST OF THE WORK OF THE TEAM.**

**It Can Be Done By Increasing the Number of Working Days—Do This By Diversifying Crops, Planning the Work and Draining the Land.**

By Prof. J. F. Duggar, Alabama Experiment Station.

WE ARE entering upon the winter season, during which one of the heaviest expenses is the cost of maintaining the teams.

Not only do they incur large expense for feed, but they should also be charged with interest on the investment in teams, and with their depreciation. During much of the winter season, and at certain other times of year as well, the farm teams perform very little labor on the average Southern farm.

It is well worth the while of every farmer to determine the expense to which he is put in keeping his teams. This information will be useful in making us more careful to find more continuous employment for the teams and in determining the cost of producing any given crop, for its cost will largely depend on the price at which the team work expended in producing that crop is charged.

The object in any calculations to determine the team expense is to answer the following question: "What is the expense of food, care, interest and depreciation for each day that the horse or mule works?"

The following figures are employed merely as an example of one of the easiest ways of calculating this cost, which at the best is a rather indefinite problem. Each reader should, of course, substitute other figures according to his experience.

Annual cost of feed:

72 Bushels of corn at 80c. . . . .	\$57.60
2 Tons hay, or other forage. . . . .	30.00
2 Months' pasturage. . . . .	1.40
Interest at 8 per cent on one \$200-mule . . . . .	16.00
Annual depreciation (\$200—10 years) . . . . .	20.00
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	\$125.00

We are accustomed to think of the cost of maintaining a working horse or mule on the farm at about \$80 per year, which is probably about correct for a cheap animal, not so continuously employed as it might be. But either figure must lead us to the conclusion that horsepower costs more than we would expect. Let us see how this cost is related to the charge that we ought to make for each day of team work employed in producing any crop.

In the first place, this charge must be considerably above the cost of feed, interest, depreciation, etc., for the days during which the animal is actually at work. For obviously, it must include, in addition, some figure to cover the same class of expenses incurred on Sundays, and on other idle days. The simplest way to ascertain the team cost for one work day, is to divide the yearly ex-

pense by the number of full days during which the horse or mule worked.

There is need to have more records kept of the actual number of days during which a horse or mule works on various types of Southern farms. On the average cotton farm, Hammond, about 20 years ago, estimated this at 96 days. I have observed some poorly managed 20-acre tenant farms, for which my estimate of the days of all-day work of one mule would be the almost absurdly low figure, 65 days. On this latter basis, we should have the animal cost of maintenance of team (say \$100) divided by only 65 days, giving \$1.53 as the astonishing cost of each day's work. Where the mule works 94 days, the cost would thus be \$1.04 per day of actual work.

The main point is that every increase in the number of days during which the team is employed greatly reduces the cost of a day's work by a mule. Thus, on a farm where the teams are in use 130 days per year, the cost per day of work would be only half as much as on the poor tenant farm. If by good management and foresight, the number of working days could be increased to 195 days, the daily cost would be only one-third the maximum.

How can this increase in the number of working days of the farmers' team be increased? In brief, this economy can be effected by the following means:

(1). Diversification of crops, growing those that require their team work at different seasons.

(2). By careful planning in advance the work of the teams, especially as to their employment while the soil is too wet for tillage operations.

(3). By better drainage, which permits plowing sooner after rains, than in the case of undrained land.

(4). By keeping records from year to year of the number of days of team work each week or month for each crop or operation, which records will sometimes reveal the possibility of dispensing with one or more mules. More frequently the need is to increase rather than to reduce the number of work-stock. In times of surplus team the extra animals can often be employed to advantage in more frequent cultivation or deeper preparation than is customary.

In the South, with its long seasons for preparing the land, and for planting, we should be able to get from each team a far larger number of days of service than can the farmers of higher latitudes, where the soil is frozen stiff for a number of months each winter. On our ability to do this, will largely depend the economy of profit, with which we can produce our greatest Southern staple—cotton—and all other farm products.