

Professor Massey's Editorial Page.

Notes and Comments on Recent Issues.

R. BUTLER'S suggestions about reading systematically are well worth reading and re-reading. This is the day of "book farming," and the book farmer is fast coming to the front, while the man who refuses to read and study his profession is going to get left by the procession; for the thoughtful farmers of the South are becoming more and more convinced that they must read and study if the wasted lands are to be restored.

Those who imagine that farming is simply a matter of brute muscle and human muscle and drudgery, will get the pay for mere muscle, while those who develop brain-power will get the higher rewards that always come to the man of brains. We must learn what other men have found out in regard to the soil, the plants that make our crops and the best ascertained methods for getting the best results. There is no profession on earth that requires as broad a course of study as the cultivation of the soil, none in which brain counts for so much more than muscle, none to which the best scientific study can be more profitably devoted.

NATIVE SHRUBS AND TREES.—Mr. Busbee writes charmingly of our native plants, and the wonder is that they are so generally neglected. Where I now live one can go out in spring and see great thickets of *Kalmia latifolia* in gorgeous bloom, but on the lawns in town not one is to be seen, and the shrubbery in general use consists of spireas, deutzias, and forsythias; all very pretty in bloom, but none of them particularly handsome out of bloom while the glossy evergreen foliage of the *Kalmia* is attractive all the time. Then everywhere one sees the hedges of the California privet, really Japanese privet, while all through the woods there are masses of wax myrtle that would make as pretty a hedge and one that will be green all winter. The gall-berry, too, will make a fine low hedge or border, and it, too, has glossy evergreen leaves. But these are only myrtles and gall-berrys, and people want far-fetched stuff. Go down on the seashore and note what a dense growth the smooth leaf holly, *Ilex cassine*, makes where pruned by the sea wind. How much more handsome a hedge this would make than the privet, for it, too, is evergreen. Then out in our mountain country who has not admired the grace of the hemlock, the spruce pine of the mountain people? And yet, few know that this tree makes a far more handsome hedge than the privet, and stands shearing well. It is all right to make use of the handsome plants from foreign lands, but do not neglect the beauty we have all around us.

NEED OF A VETERINARY COLLEGE.—Dr. Roberts is right as to the importance of good veterinary education. There should be such a school at the North Carolina A. & M. College, for I am constantly getting queries from young men who want to study veterinary medicine, asking about this and that fake correspondence veterinary school; and I have uniformly had to advise them to keep their money out of the hands of these people, and that the only way to get good veterinary instruction is on the spot at a good college, where clinics are available.

IMPROVED IMPLEMENTS NEEDED.—There is a crying need in the South for better labor-saving implements in the cultivation of corn and cotton, and the abolishment of the one-mule plow in the working of these crops. Last spring I rode down through the whole Delaware-Maryland-Virginia Peninsula from Wilmington, Del., to Cape Charles, Va. In the upper end of Delaware the sight of the clean fields and beautiful farms was a delight to the eye, and I noticed in the clean corn fields that the men were all riding on two-horse cultivators and the corn fields were promising. But when I reached the Virginia counties, where the greatest attention is given to the fields of Irish and sweet potatoes and the corn crops are generally small as compared with the upper part of the peninsula, I saw men with one-horse plows "barring off" corn by throwing a furrow from each side of the rows and then coming back and

throwing it to the corn and then plowing out the middles just as their grandfathers had done, and for no earthly reason but that their grandfathers had done so. So I came to the conclusion that there was need for missionary work on corn growing in these prosperous counties to teach the farmers how to save human labor. Then in the upper counties I saw fine farm buildings and every one with an implement shed in which to house the improved tools, but in the Virginia end implements that had been used in the planting of the potato crops were standing in the fields.

WASTING LABOR IN OTHER WAYS.—In Virginia the counties of Accomac and Northampton are mainly devoted to the growing of early Irish potatoes and sweet potatoes for the Northern market. They are prosperous counties of small farms and neat dwellings, but all winter the sweet potato growers rake the pine straw from the woods and haul it on to the land that is to be planted in sweet potatoes, spread and plow it under for the potato crop. Of course, the burying of this organic matter does good and they grow good crops of sweet potatoes. But then in winter one's eyes are pained by the bare land everywhere after the late crops have been shipped or stored. I have been urging these men that it would be far less laborious to grow a crop of crimson clover to turn for their sweet potatoes, and that the clover would improve their land far more than the pine straw.

One man wrote to me that it would not do as the clover would make too great a growth of vine and make the crop late. Then I met some time ago one of the more progressive farmers there and asked him if he had tried the clover. He said that he had, and always tries to have it, and that he makes better crops by reason of it. Meeting the same man a few days ago, I asked him about his crop. He said that he has made this season 150 barrels per acre after clover, and that one of his neighbors got a growth of crimson clover on land that would not make more than fifteen bushels of corn per acre, and turned the clover under and made 127 barrels of potatoes per acre after liberally fertilizing the clover with acid phosphate and potash. And I will warrant that that land will now make more than fifteen bushels of corn per acre from that one effort to improve it.

When one can get large crops of potatoes from the sowing of a few bushels of clover seed, larger crops than by laboriously raking the forest and hauling pine straw, it is amazing that others do not see it. Where I now live, the man who fails to put clover in his corn and among all his truck crops of watermelons, cantaloupes and tomatoes, is considered behind the times. As I have often said, cowpeas in summer and crimson clover in winter make a team for the improvement of the land and the feeding of stock that cannot be beaten.

Education in Agriculture.

ORGANIZATIONS FOR STUDY, such as county and district schools, or clubs, are all right, but the individual study of good books and the State and National bulletins is the most important help that the working farmer can have, and the most encouraging items in my correspondence with farmers in the South are the letters I get from young farmers asking for lists of the best books to buy. A young farmer in Louisiana sent me lately a list of the books he already has, and a very fine list it was, too, but he is not yet satisfied with his library and asked for a further list.

Of course, every farmer can have his name listed for the bulletins of his State Experiment Station, and he can have his name listed also for the monthly list of publications of the Department of Agriculture in Washington, and can from this list select such as he wants. He can also have his name listed for the circular stating what publications have been received in Washington from the various State stations, and can usually get a copy of any of these from the stations, if there are any available for outside distribution, by writing to the directors. That a working farmer can add \$500 a year to his income through study has well been shown in the experience of many. Then the Grange and the Farmers' Union can be made thoroughly educational if the members will but make them so. That some of them are doing this is evident from the fact that one local union recently paid a large sum for traveling expenses to get me to come and hold an institute with them, and the Union everywhere can put these institutes on a business basis and make them a real school.

The Gold Mine of the Farm.

PROFESSOR HOPKINS, of Illinois, has estimated from carefully prepared data that the manure produced by live stock in this country, if it was economically saved and applied, is worth more than the whole corn crop produced. And yet, even when live stock are fed, what a waste there is of this mine of agricultural wealth. In the best agricultural sections of southeastern Pennsylvania I have seen barn after barn with little windows in the rear of the horse stalls from which the manure is thrown out in heaps against the barn to lie in heaps and beat and wash away under the eaves till more than half its food for crops has been wasted.

Then I have seen farmers there loading this wasted manure on wagons and hauling it to the fields and then laboriously forking it off into piles over the field to lie there, in many cases, all winter to further waste and then to be handled again, when it could have been loaded on a manure spreader and been spread at once where plants could find it.

And I have seen in the South the little accumulation from the few cattle kept left to lie and waste in the open lot and in the spring hauled out and with much labor mixed with dirt from the fence rows, when it should have been hauled and spread at once as fast as collected.

I visited once an intelligent farmer in Alabama, who was breeding fine stock and making large crops of wheat in a section that had been devoted to all-cotton, and though he kept many cattle, I found his barnyard so clean that a lady could have walked over it in slippers. This man realized that his manure was a gold mine and did not let it run to waste. He said that when he began to grow wheat, he was laughed at, but he persevered, though his first crop was but six bushels per acre, and when I was there he was making 4,000 to 5,000 bushels of wheat at the rate of thirty-five bushels per acre. He was a man who found that it paid to feed cattle in the South and make manure. Growing large crops of wheat, he did not have to rake pine straw for bedding, but had a great surplus of straw, and some of this he used for covering old red galls and gullies on his farm.

He showed me large spots which were formerly bare galls. He covered them two feet deep with wheat straw and let it lie there to stop the frosting off and washing until it was completely rotted. Then the rotten straw was dug down deeply put some humus into the soil, the gall was no more. In the gullies filled with straw the soil collected, and soon the gullies could be plowed in and were no more.

Where a man practices a good rotation of crops, grows small grain and feeds good forage to cattle, plows deeply and subsoils the red hills, he soon finds that in the manure made on the farm he has a real gold mine that increases in value and production year after year. The more manure used, the more feed can be grown; the more feed, the more cattle can be fed; and the more manure, the more corn and cotton, until the farmer is independent of the fertilizer mixer.

There is only one way that the purchaser can be certain of getting good seed corn, and that is to purchase from some one of reliability as to the purity of the variety, and then require that the corn be sent him on the ear. Until the farmers of our territory learn this one simple lesson of requiring the seed corn which they buy sent to them on the ear, there will always be complaints of failure to obtain satisfactory corn, no matter how careful the advertising managers of agricultural papers may be in guarding them against fraudulent vendors. Most of the inferior seed corn is sent out through ignorance of what seed corn should be. This will be largely corrected when all refuse to purchase shelled seed corn, but invariably require that it be sent them on the ear.

The following shows the digestible nutrients in cowpea and timothy hay:

	Cowpea.	Timothy.
Protein	10.8 per cent.	2.8 per cent.
Carbohydrates	38.6 per cent.	43.4 per cent.
Fats	1.1 per cent.	1.4 per cent.

In actual feeding tests these figures represent the results obtained, and yet we buy thousands of tons of timothy hay where we can produce the peavine hay at one-fifth what we pay for the timothy.