

Agricultural and Industrial.

Four Acres Red Clover.

STATE OF NORTH CAROLINA,
Orange County.

A. W. Graham being duly sworn, says he accurately measured the land upon which Jas. Norwood raised a crop of Red Clover the past season, and the quantity of land is (4) four acres and no more.

(Signed.) A. W. GRAHAM,
Sworn to before me this 13th day of November, 1874.

GEO. LAWS,

Clerk Superior Court.

Jas. Norwood, of Orange County, being duly sworn, says he raised the past season, a crop of Red Clover, upon the land measured by A. W. Graham, and the quantity of hay raised thereon was 24,300 pounds, and no more; and the statements in regard to manner of cultivation, &c., are correct to the best of his knowledge.

Soil, red clay; no manure used on this crop, land very rich from previous manurings; one gallon seed sown on wheat 1st October, 1872, and the same quantity sown again in February 1873, and rooled in. Cost of harvesting, an average of 18 cts per 100 pounds, (mower and sulkey rake used.)

(Signed.) JAS. NORWOOD.

Sworn to before me this 13th day of November, 1874.

GEO. LAWS,

Clerk Superior Court.

Five Acres Red Top Grass.

STATE OF NORTH CAROLINA,
ORANGE COUNTY, N. C.

A. W. Graham being sworn, says he accurately measured the land upon which James Norwood raised a crop of Red Top Grass, the past season, and the quantity of land is (5) five acres and no more.

(Signed.) A. W. GRAHAM,
Sworn to before me this 13th day of November, 1874.

GEO. LAWS,

Clerk Superior Court.

James Norwood, of Orange, county being duly sworn, says he raised a crop of Red Top Grass the past season upon the land measured by A. W. Graham, and that the quantity of hay raised there on was (27,000) twenty-seven thousand pounds, and that the statement in regard to the manner of cultivation, &c., are correct to the best of his knowledge.

Soil, grey clay; seed sown on Rye, half bushel per acre, October 1871, (heavily manured for the rye), water turned on two days of each week from February to June.

Cost of harvesting, 10 cents per hundred pounds, mower and sulkey rake used.

(Signed.) JAS. NORWOOD.

Sworn to before me this 13th day of November, 1874.

GEO. LAWS,

Clerk Superior Court.

Statement.

Giving a table of corn distances for both single and double rows with the two systems compared; also plan of planting corn by the double row system, manuring, &c. By R. H. Hardaway, before the Georgia State Agricultural Society, August 13, 1874.

SINGLE ROWS AND AN OLD SYSTEM OF MANURING, VIZ: TWO GILLS OF COTTON SEED TO THE HILL.

No. 1. Corn planted 3 feet by 3 feet gives 70 rows to the acre and 70 stalks in a row, which makes 4,900 stalks to the acre, and two gills of cotton seed to the hill, will require 38 bushels of cotton seed.

No. 2. Planted 3½ feet by 3½ feet, gives 60 rows and 60 stalks to the row, equal to 3,600 stalks to the acre, and 28 bushels of cotton seed.

No. 3. Planted 4 feet by 4 feet, gives 52 rows and 52 stalks to the row, equal to 2,700 stalks and 21 bushels cotton seed.

No. 4. Planted 5 feet by 3 feet, gives 42 rows and 70 stalks to the row, making 2,940 stalks, and 28 bushels of cotton seed.

DOUBLE ROWS.

No. 5. Rows 4 feet 8 inches: corn one foot apart in the drill, 2 feet between the corn rows, 2 feet 8 inches in middles. This gives 45 rows and 420 stalks to a row, equal to 18,900 stalks, and requiring 147 bushels of cotton seed. One acre planted in this way equals 3.86 acres planted in single rows 3x3 feet.

No. 6. Rows 4 feet 4 inches; corn dropped 20 inches in the drill, 20 inches between the corn rows, and 2 feet 8 inches in the middles. This gives 48 rows with 252 stalks to the row, making 12,096 stalks, and requiring 94 bushels of cotton seed. One acre planted in this

way is equal to 3.36 acres planted in single rows 3½ by 3½ feet.

No. 7. Rows 4 feet 6 inches. Corn 18 inches apart in drill, 2 feet between corn rows, and 2 feet 6 inches in middles, gives 45 rows with 280 stalks to the row, making 12,600 stalks, and requiring 97 bushels of cotton seed. One acre in this way is equal to 4.66 acres planted in single rows, 4 by 4 feet.

No. 8. Rows of 6 feet. Corn dropped one foot apart in the drill, 2 feet between the corn rows, and 4 feet in the middles, gives 35 rows with 420 stalks to the row, equal to 14,700 stalks, requires 115 bushels cotton seed. One acre equals in yield 5 acres planted in single rows 5 by 3 feet.

MANURING.

This subject has been the study of man from the earliest days. The husbandman asked the master to spare the unfruitful fig-tree, until it "had been digged about and dunged," to make it bear fruit. No subject enriches the mind so much as enriching the soil. And although it lies at the very root of successful agriculture, it is most wontonly wasted and abused. At any gin house, the eye meets large piles of cotton seed, laying out in the weather unprotected from the rain and sun, and hourly evaporating all the ammonia on the air. It is astounding that men have a perfect knowledge of the great value of cotton seed as a fertilizer will persist in throwing it out to rot as it comes from the gin, and make no effort to protect it. Experience has demonstrated the fact that one bushel of unrotted seed is of more value than bushels rotted by the winter rains. When plowed in well in the green state, they rot in the ground, filling the earth with ammonia and prepare the soil with food for vegetation.

The same careless habits exists with other manures; they are exposed to sun and rain and lay spread out in lots regardless of their value; and even the costly guanos, for which so much money is expended, are wasted and imperfectly applied. Planters generally delay preparing their land and putting in the manure until driven by necessity. Then everything is rushed and hurried; the land is half broken; and when the guano is being distributed, because of its bad odor, it is turned over to the negro, to be put in the ground as best he can, and to do it fast, and get rid of it. The bags are placed at great distances over the field to have it convenient, and it is carelessly put out; some in too great quantities others too small. Many furrows with none, and no regularity at all; and if it should prove of little value, the planter curses the guano, and swears he has been swindled by the manufacturer and agent; whereas, if he had paid the proper attention to seeing it evenly distributed all over the land, and properly covered in the furrows, it would have proved good and made a handsome yield. As long as manures are carelessly attended to, they will prove valueless. Food gulped down in large pieces without chewing, will produce bad blood and sickness. Land treated here and there to overgrown doses of guano, causes it to sicken and lose its moisture and fertility. Manures should be either broadcasted and thoroughly plowed under, or evenly distributed in a furrow and well covered up. To do otherwise, is only throwing away the manure.

In planting corn, my rule is to break the land well in November or December. In January, lap off the corn rows and distribute, evenly in the furrows, three-fifths of the cotton seed (or other manure) that I intend to use, and bed on it. In February, I run one foot on each side of the furrow containing the manure, and plant the corn at such distance as thought best. This will give double rows. At the second plowing, I open a furrow one foot on each side of the corn with a wide, dull scooter plow, and put in the remaining two-fifths of well rotted manure, and cover it with a sweep, thus completing the middles. My full plan of culture, will be seen in the published proceedings of the last annual Fair at Macon, Georgia. If it is desired to make one acre produce as much as ten acres, as much manure must be put on one acre as upon ten acres, and as many stalks of corn should be put upon one acre as upon ten acres. Don't be afraid of firing the corn by concentrating so much manure and so much corn on one acre. It will require that much corn to prevent it from firing. There being so much heat or ammonia in the ground it will require this extra amount of vegetation to carry off the heat. It will not fire. On the contrary, if only the usual quantity of corn, was planted in this highly fertilized one acre, it would burn up simply for the want of enough vegetation to carry off this generated heat from the manure. Of the many distances named for planting corn, I prefer the six feet rows, (No. 8) that gives 14,700 stalks to the acre. I prefer it because of the better room to plow between the corn, and prevents breaking by the horse or plow. The yield will be good enough. I have experienced three successive years with this concentrated plan, and have not failed in any year. It has stood the test of excessive drought and excessive wet weather, and has not fired under either, from the simple law of nature that the foliage was proportionate to the ammonia in the ground.

MECHANICS.

One serious detriment to the prosperity of the South, lies in the neglect of mechanical trades. Our people must entertain a higher respect for mechanics. Every boy should learn a trade, and pursue it. Just look at the present state of things. If a horse needs shoeing,

it is done by a negro blacksmith. Our houses are built mainly by negro carpenters. If a common fence around our lot has to be made, we go to a jack-leg negro mechanic to do it. The negroes are beginning to occupy the places of runners and firemen of engines; and unless we teach our sons the mechanic trades, before twenty years have passed all the trades of their country will pass into the hands of the negro and Northern men; and we shall be dependent upon them to do the entire labor of the country, both agricultural and mechanical. When that takes place they will become the masters of our farms and the owners of a majority of the city and town property. No people can prosper without furnishing the labor in every department of industry. Learn your sons to be blacksmiths, carpenters, engineers, brick masons, and all other trades by which an honest living can be made. We must have diversified labor before we can be entirely independent and prosperous. We must spin and weave our cotton, make our own machine shops, build our engines and our houses and man our forges. This will eventually be the white man's country, exclusively. The negro will die out. If we expect to make it honorable, prosperous and happy, we must learn the white youth of the land to cultivate the farms and to labor at all the mechanic trades. If we neglect it our children will become hewers of wood and drawers of water and a race of paupers.

Farm Work vs. Other Work.

There has been a good deal said, *pro* and *con*, respecting farmer's sons leaving their fathers and agricultural pursuits altogether for other employments, and when the long days and heavy labor is taken into account, it is no wonder they should do so. It is but right to admit at once that on the best farms there are many contrivances for lessening the most laborious jobs—as horse hay-forks, tenders, sulky rakes, &c., are added to the mowers and reapers; but with all these helps, the many hours extra on the farms over any other employment are wearisome in the extreme, and doubtless the strain, combined with the one hour in the morning and the two hours at night over the usual time away from faaming, tells on the constitution and brings on chills and fever and other troubles in the autumn. Where it does not do this, consider how it is to have no time to sit and read or rest an hour or two before lying down for the night. It would be better to have the hours the same on the farm as in the saw mill, the factory, or the shop, and as in city or town work, in which case there would not be so much running from the country to the populous places.

In England the days in summer are much longer than here, but, unless, when hauling hay home, the men all leave work at 6 P. M., and the teams only work when plowing or cultivating from 7 A. M. till 4 P. M. In Scotland and in the County of Norfolk, England, there are stablemen who feed the horses, and those who work them go out at six, bringing them home at noon, and afterward keeping on till six. In almost all other parts of England the hours are as above stated, the horses not coming home and having nothing beyond a ten minutes' lunch at noon, which is eaten at the land's end. The crust of bread and cheese the teamster and boys carry in their pockets, or in a wallet, and the horses have hair nose-bags, with some oats and chaff, or have a bit of hay, which would be brought into the field with a cord around it and hung on the hames. Of course ten minutes don't allow of much being eaten, but many farmers' horses neither eat nor drink till four o'clock; then they are not given more than a quart or two of water until they have had some hay or straw, which they eat while the men and boys have their dinner. This is generally eaten in the stable, unless the farm homestead is in the village, in which case they go home to their cottages to eat, after which they come back and feed and clean the horses. The food after the horses are watered is chaff and oats, and often a small proportion of split beans, and this the teamster gives in small quantities, mixed, commencing with very little grain to the chaff, and increasing the oats and beans as the appetites become satisfied.

I do not mention this English way of managing farm horses and feeding them to represent it as better, but merely to show that the hours are so much less in the day, and that there is cause why young men of spirit and who are fond of reading or of society and rational recreation of any kind should become weary of one slavish round of labor from dawn till night, or say from sunrise till sunset, and perhaps seeing daily other men passing to their calling after they have been in the field an hour, and returning, with nothing to do after they get home, fully two hours before the farm labor is over.

As long as emigrants continue to flock to the United States, the leaving of farming for other pursuits by the native born will not be felt so badly, but a time may come when it will be well to make agriculture more attractive, for it is not wise to have such a leading interest supported by a force of men who stand the very lowest in the scale of social intercourse, and who have no time to improve their minds above the old timeworn belief in the moon's influences, witchcraft or spiritual visitations, and in all manner of unfounded diseases and imaginary afflictions among live stock. A good deal is said at times to young men in New York and other cities by old men and by gentlemen who have succeeded in the world

in making money, and very sharp and "smart" remarks are made to apply to the unfortunate young gentlemen for hanging around while there is the healthy and noble occupation of farming open to them. Now; it would be the most pleasing spectacle imaginable to have the advisers—the men who are so hard on the youthful generations—turn out themselves and lead the young fellows. Let these fine middle-aged gentlemen take a number of the clerks into the country, and rising with the sun, and on a pork and potato diet, continue day after day in the sun encouraging them to "come along" and stick to work till there is no more sunshine for that time. Then, when at the homestead, do the chores, and lie down in a room with a nice sprinkling of mosquitoes and an importation of bugs, &c., brought by some of the foreign help in their boxes or trunks across the water.

It is all very well to write in nicely-chosen language about the handsome, athletic farmers, their parties, their holidays and general good time, but really proves a very different state of facts. Parties and neighborly gatherings are at a season of the year when the hired help is absent; but the farmer's sons might be very merry and the extra enjoyment compensate for the drudgery of summer, only fever, &c., in the autumn, has taken so much of the cheerful share of the spirits out of the system. There is a great variety in farmers' homes, in their treatment of men, and their disposition to create and produce a state of comfort and happiness. It is but justice to admit that there are farmers' homes having all the advantages and joyous surroundings depicted in novels; but they are so few and far between that they could not be found by the city youth, and those high sounding writers who are so hard on what they term laziness have no connection with that class of farmers; they belong to the high and mighty men who have no laziness, only a constitutional unfitness for muscular exertion, and those who help to support these daily scribblers are leading agriculturists who pay some poor devil a little more than common wages to moil and toil and lead the hired help, all of which though, in most instances, ends in an auction sale of all the stock and implements, with the farm to be rented.

Work in agricultural pursuits is not directed with the same brain power as other great interests employ; hence the long days and laborous straining till the back and limbs ache, and until those who have not been hardened to work in their youth have to succumb, whereas were machinery and implements manufactured with an eye to saving the attendance from being so irksome, and the labor and duties made as light and non-repulsive as in other business, there would be no cause for recommendations to country people not to flock to the cities and for the city people to go into the country.

Agriculture would be more remunerative to the farmers, and laborers would be more settled and reliable if a system of cropping, grazing and wintering of live stock was adopted, so that a uniform number of laborers could be employed all the year round. Men who could be employed constantly would feel more like taking an interest in their employer's prosperity, and if, as in England, each man was kept to the particular department he is most adapted for and which he feels the greatest pleasure in attending to, the whole organization would proceed and have a charming effect on the profits and prosperity of the farm. A great proportion of the men who run around boarding at the farmers and having no settled home are complete time-servers or eye-servants; they "put in their time," and that is all they care about. There is nothing of the sort in England; there are no meals to cook for farm hands, excepting perhaps, for one or two engaged by the year, or from Oct. 11 till that day next year, and there are always young men who, oftener than not, marry one of the servant maids and have a cottage after the wedding, and the man continue on at weekly wages without board.

A WORKING MAN.

Wild Flowers.

Lovers of flowers, and particularly that class which endeavors to imitate Nature in all her wild, irregular system of distributing her flora, may now be at work preparing for next season's campaign. At the fall of the leaf the plant is mostly mature, and the roots may safely be transplanted to the garden. In a partially shaded corner is where the wild flowers love to grow, and here in a nicely prepared soil of leaf-mold from the woods, with an old stump or two, a few mossy stones carelessly heaped together in a corner, and beneath the shadow of a few choice shrubs, may be set out the choicest ornaments of our woods. The decaying leaf is the guide to us, and it is rarely that we fail in removing the root, provided a little ball of earth is left surrounding it. A low moist spot is a prize indeed; for by inserting a little peat and sand we can then introduce such charming plants as grow in the sphagnum swamps, and the multitudes of what may be termed Alpines, found in the crevices of rocks may now be safely transplanted to our little artificial rockery with entire safety.

We think our European florists rather overdo this matter by introducing these plants into all manner of conspicuous places; but we, on the other hand, almost totally ignore them, and therefore are far worse.