

Agricultural and Industrial.

Seasonable Hints.

June is the month in which to conquer grass in cotton, tobacco, corn and potato crops. You know there is an old saying, "a dry June for a good crop." The great advantage in a dry June is that it enables the cultivator to work regularly and completely destroy that arch-enemy of hoed crops, in this region—crab grass. Therefore, while the sun shines now, make stubble of what little grass appears in your field. If you rise and go to work early and keep at it late, remember you are taking out an insurance for rest, later in the season.

Our advice is, *keep the plows moving!* If the soil is dry you need a layer of well pulverized earth spread out over it. If it is very wet you need this same covering of loose earth, as many days in the growing season as possible. If you allow your field to stand *many days after a rain without stirring the top soil* you lose heavily on the possible production.

We have known a number of men to make excellent crops in very wet seasons, when their neighbors generally failed. Wherever we have inquired the reason of this exceptional success, we have been informed its secret was the plows were not stopped for the weather, but kept moving whenever possible.

No matter what happens, don't give up! We know a young man who, in 1872, planted a crop of nearly twenty-five acres, about equally divided between corn and cotton. When he seeded his land he expected to run the plow himself and hire hands to do the hoeing. He failed to find the help he had calculated on getting and was consequently compelled to do his hoe work, also. Two or three times, during the Summer, after he had vainly sought at the village near him for hands, (inquiring for them at night, because he could not leave his work in the day,) he was on the point of abandoning a portion of his crop. But he had too much pluck and so could not get his consent to surrender. He kept working on—now with the plow and now with his hoe—and had the satisfaction of cultivating, *without any assistance whatever*, the entire twenty odd acres. The land he worked was poor, but he made several hundred dollars. *For the money he made, he has now the strength, courage and confidence that comes of conquering difficulties.*

WHEAT AND OATS.

The prospects for good crops of small grain in this State are encouraging. Oats especially are represented to be unusually promising. Wheat in some localities is being injured by rust.

CORN.

While, as a general rule, early planting should be attempted for this crop, we would remind our readers that on good soil it may be safely seeded as late as the middle of June. Last year we saw ten bushels to the acre made on old upland, without manure, planted early in June. This crop was cultivated with so little labor that there was a good profit in it. So, although we would not select a season as late as the present period for planting upland corn, we would not hesitate now to appropriate spare ground and time to the attempt. Many farmers regard the space from the first to the middle of June as the very best time for planting corn on lowlands, especially such as are subject to overflow.

SWEET POTATOES

Should be drawn and set out now as soon as possible. If the work is already done, so much the better. Do not wait for rain, if your vines are old enough to set out. They are not old enough until they have sent out a number of roots. We have often seen potato beds stripped too early. The old potato supports the sprout at its first appearance. Then it sends out roots in search of nourishment for itself. Do not detach it from the mother potato until these roots are well enough developed to support the vine, and tough enough to resist destruction in transplanting. Better depend partially on runners clipped off for part of your crop than to strip your bed while the plants are too young and tender. As soon as you are satisfied the vines are old enough, set them out, putting a gill of water at the root of each plant and covering with dry earth. You will not lose one plant in a hundred for want of moisture.

PEAS

Should be planted in every field of corn where the soil is sandy or the land fresh. If you make but few peas you will find your land

greatly improved by your work. If you get a portion only of a field in peas, notice the difference in your next year's crops where you put peas and where you had none. We are satisfied you will see a marked difference.

PLANT FOOD CROPS.

Use every spare spot of ground, employ every spare moment of time to make food for man and beast. If you have a home and an abundance to eat for your family and your farm animals, you may snap your fingers at hard times, panics and low prices of cotton and tobacco.

CLOVER.

We repeat the advice, given elsewhere, that you study the long article, published in this issue, on the cultivation and uses of clover. It is from the pen of a man who has done himself what he advises you to do, not in a latitude better suited to clover than our State, but in one farther South and warmer. There are some fine fields of clover near Raleigh. Next week we will give the quantity and value of the crops harvested from some of them, and the estimated cost of production.

Tobacco Growing in Western North Carolina.

[Tobacco Plant.]

From the time of Sir Walter Raleigh, North Carolina has been known as the home of the tobacco plant. On her soil is grown annually the finest specimens of this narcotic weed known in the markets of the world. A tour of inspection has satisfied the writer that many of the counties of Western North Carolina possess soil and climate unequalled anywhere in the production of the finest grades of tobacco. Here, this crop is deservedly attracting more attention, as the owners of these lands learn to appreciate and properly utilize them in the raising of a product that gives the largest returns for labor expended thereon. Where tobacco grows to perfection, as it does here, no crop can equal it in profits. Its cultivation and management require more skill and attention than other crops to attain to the highest success, but not more than has already been developed by some of her young enterprising planters, who are reaping their rewards.

The prospects this season for a fine crop are everywhere gloomy and unpromising. The past year proved also unfavorable, and as a consequence bright wrappers and smokers are scarce and high, and with doubts as to higher as the season for working advances. Every effort should be made to grow as much fine bright tobacco as possible. It will be needed, and at prices that cannot fail to remunerate those who are so fortunate as to produce these favorite grades. As a planter of some experience, the writer will venture a few suggestions founded upon practice, with the hope that some enterprising, hard working planter may profit thereby. The tobacco planter, however successful, earns all he gets, and "knowing how it is himself," the writer is ever ready, when he can, to extend a helping hand to his brother engaged in the same pursuit.

As the season is late, the plants must be stimulated in growth to be ready for transplanting at the proper time. The crop must be hastened in maturing and in ripening, that it may be housed and cured in time to be cured well.

When we fail to produce a fine article on gray lands, we can scarcely hope that the crop will pay the costs of production. We cannot compete with the rich lands of the West in the production of dark tobacco. The great advantage in prices for bright over dark tobaccos, should stimulate all who can to raise as much bright as possible. If the suggestions given should prove aught of good to those for whom they are intended, then the purpose of the writer will have been accomplished.

R. S. RAGLAND.

Hycos, Va.

Timely Farm and Plantation Topics.

(Rural Carolinian for June.)

KEEP THE SWEEPS MOVING.

Floods and frosts in April, with cool weather and frequent rains extending into May, set back considerably the operations of the planters, even where there was no actual destruction of the early crops, as in Louisiana, and to a smaller extent in other States. Work will press closely now, and the utmost diligence and good management will be required to prevent a fatal falling behind in the working of cotton and corn. The "laying by" of the corn crop is an operation which requires about as much care and judgment as any part of the season's work. To make it thorough and to leave the fields clean, and yet not injure the roots of the growing crop, is what must be aimed at. To break the roots now, when droughts are to be expected, or to throw all the loose soil into steep ridges along the row may prove fatal to the most promising crop. We should leave the ground mellow on the surface but nearly level, except where,

as on wet low lands ridging or hilling is absolutely necessary.

PRECAUTIONS AGAINST DROUGHT.

As drought is one of the greatest obstacles with which the Southern farmer has to contend, too much thought can hardly be given to the subject, with a view to counteracting its disastrous effects. We cannot, by any means now known, prevent the dry and heated terms to which our climate is subject, and we again call the attention of our readers to the importance of securing, so far as possible, such conditions of the soil as will in the highest possible degree fit it for the absorption and retention of moisture. Careful experiments should be made with a view to determine what are the best means to enable our crops to resist long continued dryness. Salt, as a top dressing on dry sandy land, is one of the means within our reach to mitigate the aridity. J. J. Mechi, speaking of the value of salt as a top dressing for such land, says: "About five o'clock one fine summer's morning, I noticed that where the salt had been sown the previous day, every grain of salt had attracted to itself the dew, and formed on the surface of the ground a wet spot about the size of a sixpence, the ground being generally very dry."

PLANTING SWEET POTATO SLIPS, OR "DRAWS." It is well to take advantage of a rainy day for planting if you can, but plant whether it rain or not. We have planted in the midst of severest drought with the loss of very few plants. "Grout" the plants by plunging the roots into a batter composed of equal parts of fresh cow-dung, wood ashes and vegetable mould, mixed with water to the proper consistency to adhere to them. This will generally insure a perfect "stand," and hasten the growth of the vines. A good crop of potatoes will "help out" wonderfully, and there is no reasonable excuse for not having an abundance of them.

Red Clover.

Continuing to give the promised information relative to the cultivation of grasses, we offer below an article on red clover, extracted entire from "A Manual of the Cultivation of the Grasses and Forage Plants at the South," the same being a little pamphlet, published by C. W. Howard, of Kingston, Ga. Mr. Howard is a recognized authority on this subject, in his section of the country, and implicit confidence may safely be reposed in his teachings.

In the variety of its uses, this is the most valuable herbaceous plant to the Southern farmer. Lucerne is superior to it in the quantity and quality of its hay. But, then, lucerne cannot be grazed, nor can it form a part of an ameliorating rotation of crops, and will not thrive except upon land in the highest tilth and of extreme fertility. Red clover, on the other hand, bears grazing admirably, is an ameliorating crop; makes excellent hay and in large quantity, and thrives upon land of moderate fertility, such as will produce remunerative crops of wheat or corn.

The doubts as to whether red clover would succeed at the South, have been dispelled. There have been fine clover fields from Hutchinson's Island, opposite Savannah, in the middle country, and among the mountains. In no part of this State, or any other of the Southern States, has it finally failed after intelligent and persistent trial upon proper soil. A farmer may have sowed clover and failed. Perhaps he may also have sowed wheat, or planted cotton or corn and failed. But this does not deter him from sowing or planting again. He knows that he must have made a mistake, or the seasons may have been against him. These failures in clover may be attributed to bad seed, or too deep covering, or to unsuitable soil, or to a very hot and dry season.

This plant is of so great importance to us, that these causes of failure should be carefully investigated and corrected by a different practice in the future. One, or several failures, should not discourage us in a new and important culture. Many persons have succeeded in growing clover in all the different sections of the South. Why not all succeed who have suitable soil?

What is a suitable clover soil? It must contain a large percentage of clay. Our extremely sandy lands on or near the coast, will not grow clover successfully. Among them, the pea must be the substitute for clover; and an excellent substitute it is, with the exception that it is an annual, and requires some cultivation.

But where the surface is sandy and the subsoil clay, the clay may be brought to the surface and manured; clover will then thrive upon it. Generally a good wheat soil, and every farmer knows what that is, is a good clover soil. The richer the soil, the more rankly will the clover grow. It is time thrown away to sow clover seed on land that will not bring ten or fifteen bushels of wheat to the acre, or its equivalent in other grains.

The subsoil for clover must be dry. It will not thrive on wet lands. But it does thrive on bottom lands thoroughly drained. Hence it has always been the opinion of the writer, that the rice lands on our coast would yield magnificent crops of clover, and be more profitable, all things considered, than rice.

A gallon of clover seed is sufficient for an acre, or a bushel to eight acres. The seed should be lightly covered with a brush or roller, and not with a plow.

The ground for clover should be plowed as deeply as possible. The danger to clover arises from our hot suns acting upon the surface of the ground. If the young clover root has a loose bed underneath, it will rapidly penetrate a sufficient depth, to pump up moisture, and thus be measurably independent of drought. The writer has seen excellent clover grown in Morgan county, in this State (Georgia,) one of the midland counties, on worn clay soil, the seed sown in April and followed by a dry spring. The preparation was very deep plowing and dressing the surface with three hundred pounds of superphosphate of lime.

USES OF RED CLOVER.

Hay.—Clover should be cut for hay as soon as a portion of the heads begin to turn brown. Earlier than this, it is too watery, later it is too woody. Clover hay may be very useful or very worthless for forage, according to the time at which it is cut, and the manner in which it is cured. Clover cut in the morning should be treated as previously directed for lucerne. [i. e., Put it up in the afternoon in small cocks and open them next morning.—Ed. Ag. Jour.] The great object is to cure it as much as possible in the shade. The hay, when cut at the proper time and cured in this way, will be of a nice green color, with all the leaves and blossoms attached, instead of the black sticks which are often sold to us as clover hay. Rich land will yield two tons, and sometimes three, of clover hay. At \$30 per ton this is \$60 to \$90 per acre. It is as sure a crop as wheat, cotton or corn. Where there is a market for hay, considering the amount of labor it requires, and the condition in which it leaves the land, it is a more profitable crop at present prices of hay, than either of the three crops above mentioned.

Seed.—The use of clover is extending so rapidly at the South, that it is quite time we raise our own seed. The present price is enormous as compared with the cost of saving it. The second crop should be reserved for seed. A simple implement, which can be made on any farm, is made for gathering the clover heads when the seed is ripe. This is a box on wheels running near the ground; in front of it, are fingers like those of the cradle, only shorter. The box to which handles are attached, is made to tilt backward when full. It is drawn by one horse in shafts. The clover huller can be bought in New York for \$50. Five to six bushels of clover seed can be grown on one acre. At present prices, \$10 in most Southern markets, this would pay very well. There would be material advantage in buying acclimated seed.

Pasture.—No live stock should be turned upon a clover field until the clover is in blossom. The temptation to violate this rule is very great. Ordinarily short as our winters are, the provision for winter forage is scant. Clover springs so early, and our live stock are so hungry, that the inducement is very great to put them upon the clover before the proper time. But it would be less costly to buy food than to do this. By too early pasturing, the clover is killed out, and it is then said that clover will not succeed at the South. Precautions should be taken in turning horses or cattle into a clover field. If they are hungry at the time, they would over-eat themselves, and the result is an attack of what is called hoven. The animal swells, and often in a short time dies. To prevent this, live stock turned into a clover field should previously be fully fed; they should not have had access to salt within twenty-four hours; they should not the first day remain more than half an hour, and the dew should have been dissipated.

While clover gives a valuable pasture for all live stock, it is especially valuable for hogs. If they are put upon clover after it is in blossom, with the exception of suckling sows, they will need little or no other food. No one who has not made the trial, can imagine how many hogs an acre of really good clover will keep in growing order.

It should be remembered that clover, as well as all other forage plants and grasses, should be lightly pastured during midsummer. It is absolutely essential that sufficient growth be left upon the ground to protect the roots from the intense heat of the summer's sun. Our main reliance for pasture at that season should be the crab grass in our stubble fields.

An Improver of Land.—It cannot be expected, that clover will restore, unassisted, an absolutely exhausted soil. Land must be in a condition to bring fair crops of grain before clover can be sowed on it to advantage. Afterward in a judicious rotation, it will improve the soil rapidly. It does this in two ways, by the decay of its large taproot, and by its absorbing ammonia rapidly from the atmosphere. The cheapest manure that we can use, after land has been put into proper condition, is clover seed. At the North, clover is a biennial; at the South it lasts for several years, exactly how long, the writer does not know. After clover has once fairly gone to seed at the South, if a short rotation be adopted, it will not be necessary to sow it again. For instance, in the following rotation: First, cotton or corn; second, oats; third, wheat; the clover will spring spontaneously among the wheat. The ground should remain two years in clover and the rotation then be repeated. Land thus treated, will improve steadily and even rapidly, without further expenditure for manures.

In view of these varied uses, the successful cultivation of red clover is an object of the greatest importance to the people of the South.