

Live Stock.

STOCK RAISING IN THE EAST.

THE PROGRESSIVE FARMER says: "In our last issue Harry Farmer talked of the advantages offered by our eastern swamps and savannahs for beef raising. 'Arachel' we think, furnished us a letter on the same subject some months ago. We should like to hear from others."

A most useful subject for discussion, particularly at this time of high values for beef cattle. We have always heard our eastern friends boast of the excellence of their beef, fattened upon the reed marshes which are so abundant throughout that section, and recall our own experience a few years ago at Elizabeth City. The steaks and roast furnished by the excellent hotel at which we stopped were so really good, juicy and tender, of such delicate flavor, we ventured to enquire of the kindly Boniface whence he got the meat, and he replied it was all home-raised, fattened in the marshes near by.

Whatever the outcome of the present agitation as to the rapid advance in the price of meats, the Post feels justified in saying that for some time—years at least—cattle raising will be one of the profitable industries of our country, and no better time possible could come to our eastern friends for availing of their rich marshes and thus convert their waste native products into profitable as well as juicy beef and mutton.—Raleigh Post.

HOW TO FEED SHREDDED CORN FODDER

Experiments at the Maryland station show that:

- 1. A mixed feed, made by wetting shredded corn fodder and grain together, is the best way to feed corn fodder.
2. The mixed feed was more digestible and produced more flesh and milk than the same food fed separately and dry.
3. There was less fodder wasted by feeding it as a mixed feed than by feeding fodder and grain separately and dry.
4. The digestibility of shredded fodder was increased by feeding it wet—the increase being sufficient to warrant wetting.
5. The amount of water consumed by animals is about the same with the different methods of feeding.

EXPERIMENT WITH RAPE.

After seeing so much written in your valuable paper about Essex rape, I concluded to send for a 10 cent package and try it in this latitude. I sowed some of it in drills about two and one-half feet apart about May 14 in rich, loose soil. By the last of June it sprang out and was about as smother out some cabbage that was next to it, so I began cutting off the stems and leaves on that side and fed it to my pigs. They ate it as eagerly as they would corn and it seems to do them good. From the way it grows for me and the way the pigs eat it I believe it is one of the cheapest feeds we can raise. I have sent for another package and intend to drill it between the corn rows and feed it to my hogs this fall when I begin to fatten them. I believe it will help them along while feeding them corn.

I will write more about my experience after I have tried it more thoroughly.—T. B. Chaney, Atkinsonville, Ind., in Home and Farm.

Beware of Ointments for Catarrh that contain Mercury,

as mercury will surely destroy the sense of smell and completely derange the whole system when entering it through the mucous surfaces. Such articles should never be used except on prescriptions from reputable physicians, as the damage they do is ten fold to the good you can possibly derive from them. Hall's Catarrh Cure, manufactured by F. J. Cheney & Co., Toledo, O., contains no mercury, and is taken internally, acting directly upon the blood and mucous surfaces of the system. In buying Hall's Catarrh Cure be sure you get the genuine. It is taken internally and is made in Toledo, Ohio, by F. J. Cheney & Co., Testimonials free. Sold by Druggists, price 75c. per bottle. Hall's Family Pills are the best.

Farm Miscellany.

THE COW PEA: ITS PLACE AND VALUE ON THE FARM.

Prof. Andrew M Soule, of the University of Tennessee, an occasional correspondent of THE PROGRESSIVE FARMER, has in a recent issue of the Breeder's Gazette a very instructive article upon the above-named subject. Says Prof. Soule:

In traveling across the country in a railroad train or in driving along the country roads, one is impressed with the fact that much of the tilled land is unworthy of cultivation if the crops produced on it may be taken as a guide. But on second thought this does not seem possible, for on contiguous farms where the soil, the lay of the land and external condition are practically the same, one finds excellent crops by the side of every inferior one. This leads to the belief that on many farms the land has been worn out by a lack of proper rotation of crops and by the fallacy of continuous corn and wheat culture, until it has become sick, as it were, and exhausted of available plant food.

On a closer inspection of these worn-out soils one is impressed with their poor mechanical condition. They are devoid of what is known as good texture, they lack friability and fiber, they are hard and compact, and the particles of which they are composed are so closely run together that it is difficult for water and air to sink into them or move freely through them, or for the roots of plants to penetrate deep enough to escape the effects of a severe drought. Examining virgin soils of similar origin that may be found at more or less remote distances from these fields, they are found to possess all the characteristics in which the cultivated soils of long standing are deficient. As is well known, all virgin soils contain more or less humus or vegetable matter, whether they are of prairie or woodland origin. This is due to the accumulation through many years of the decaying grass on one hand and of the leaves and stems of trees on the other. It is also known that these virgin soils when kept in corn and wheat for a number of years rapidly acquire the objectionable conditions of the cultivated lands mentioned. Even on the richest of the prairie soils once abundantly supplied with humus, a marked decrease in productive capacity has been noted in recent years. This leads to the belief that the exhaustion of the humus has been one of the chief reasons of their rapid decadence, and in fact, further therefore, and especially so markedly deficient in humus as those of the South, the first step towards proof of its relation to soil fertility is not needed.

With the problem of an exhausted soil before us, their restoration must be the incorporation of this element in some cheap and practical way. With this object in view, the Agricultural Department of this Station is conducting a series of experiments in plowing under green crops for the purpose of studying their effect on the mechanical condition of the soil. The results obtained are very gratifying indeed and indicate that this method of treatment will quickly give the soils that character of tilth desirable. The method of plowing under green crops for this purpose commends itself for the reason: First. That it is the only effective means that can be employed unless it would by the use of barn yard manure. This is impracticable because of the immense quantity it would require and the difficulty of obtaining the same. Second. Southern farmers can better afford to plow under green crops than those in many other States, because it is comparatively easy for them to secure two crops a year on the same land, one to plow under and one for feed. Third. By the use of certain crops the nitrogen supply of the soil can be materially increased. Fourth. The effect of a green crop will be apparent from two to four years, and hence the operation does not need to be repeated annually.

It has been urged by some that they cannot afford to plow under green crops as they need them for feed, but is it not both a wise policy and economy to plow under a crop that will add twenty fold to the yield, as compared with cultivating this area after the old fashion when the yield will be small? A good many people have the idea that they can use artificial fertilizers and secure the desired ends, but this impression is all a mistake. Artificial fertilizers

are very useful in their places, but they have practically no effect on the mechanical condition of the soil and merely serve to supply food and stimulate the plant for the time being. Humus, on the other hand, affects the structure of the soil, changing the relation of the particles one to another, and thus influencing its action toward heat, water and air. It also aids in the disintegration of the soil particles and provides an open, porous seed bed so that the roots of plants can sink deeply into it and forage over wider areas of the subsoil, while in its decay it forms certain chemical combinations that act on the latent forms of food locked up in the soil, rendering them available as plant food.

Of all the crops adapted for green manuring, none are superior to the legumes for the reason that they have the power by means of the nodules on their roots of absorbing large amounts of atmospheric nitrogen and storing it in the leaves and stems of the plants. The value of the work done in this respect by these plants is hard to gauge from the fact that organic nitrogen in its cheapest form costs the farmer from 12 to 15 cents a pound, and as it is one of the elements most readily exhausted in the soil and required freely by all farm crops, it would be difficult or altogether impossible for the farmer to supply this need by the use of artificial forms of nitrogen.

Realizing the vital importance of the restoration of the soil texture a great deal of attention is being given to the cultivation of various legumes adapted to Southern conditions. More than twenty-five of them were grown at the Experiment Station the past year, but of these only a few offer any promise. Among the more promising may be mentioned the cow pea, velvet bean, soja bean, Canada field pea and winter vetch. Among these to date the cow pea stands without a peer. Thus far it has proved itself to be the best leguminous crop adapted to the needs of the Southern farmer. This is because of the great variety of crops with which it may be cultivated, and because of the fact that it can be so readily utilized on the farm.

The cow pea is a gross feeder and in order to secure the best results with it the soil should be well supplied with phosphates and potash. It should be deeply broken and subsoiled to a depth of fourteen inches on heavy lands. This can be cheaply and effectively accomplished by means of the subsoiler attachment on some forms of disk plows. Thorough cultivation of the land is half the battle in producing any crop and the cow pea is no exception to the rule.

Where it is desired to secure two crops of cow peas a year, the pea should be sown on carefully prepared land as soon as all danger of frost is past. The first crop resulting may then be cut for hay when the leaves and pods are beginning to show a yellowish tinge. In a reasonable season and on a good soil a second crop will then be produced and this is the crop that should be saved for seed, for our results here are rather remarkable in showing a much heavier fruiting with the second crop than the first. It is thought that this method will prove entirely feasible in this State, and it is a subject certainly worthy of the most careful consideration, for the objects of utilizing the cow pea in this way are almost unlimited, and it is very remarkable to get two crops in one year from a plant of such high feeding and productive capacity. It must be borne in mind that the cow pea will not make two crops on very poor land; it will not always make a good crop the first year it is grown on a piece of land. This is because the bacteria which live in the nodules on its roots are not always present in the soil and it may take them one or two years to increase sufficiently to assimilate enough atmospheric nitrogen to insure a large and thrifty growth. It is not to be inferred that two crops of cow peas can only be secured on very rich land, but as an idea seems to prevail that cow peas will grow on any kind of land and with any kind of care, it was thought well to make this statement for fear of disappointing some who do not fully appreciate the importance of plant food and proper cultivation as related to crop production. It is certainly feasible to cut one crop of peas for hay and secure an aftermath from a foot to fifteen inches in height to plow under. This will give the soil anywhere from 25 to 50

pounds of nitrogen per acre and if wheat or some other cereal crop follows, the results will generally bear out the wisdom of plowing under the aftermath. If it is desired to out the second crop for grain, the stubble and waste remaining should then be plowed under to prevent the loss of nitrogen through leaching, and it may then be seeded to corn the following spring. Peas can easily be used as a soil renovator after wheat. If the wheat land is broken immediately after harvest and well seeded with peas, they will make a growth of as much as two feet by the first of September, when they should be immediately turned under and the ground rolled and harrowed to hold the moisture and the land cultivated at least once a week until the time of seeding. If there is any way to insure a crop of wheat better than this, we do not know it. Cow peas may also be used as a catch crop after almost any crop on the farm, or they may be sown in by-places and furnish useful food supplies for green feeding.

Of all the crops fed to our cows singly as a forage crop, none excels the cow pea, nor is there any eaten more readily or with greater financial results. Experiments made at this Station indicate that its feeding value is not thoroughly appreciated, and that where cow pea hay can be abundantly produced it can probably be successfully substituted for cotton seed meal in a dairy or beef ration, and this of course means much to the farmer of limited capital. Cow peas and sorghum sown broadcast for green feeding is the finest soiling crop that the Station has yet discovered, and we can recommend it without qualification to the dairymen of the State. These crops can either be drilled or sown broadcast in succession, so as to last when combined with corn almost the entire season. The making of cow pea vine hay has been looked upon as a very delicate operation, but the difficulty can be overcome by the use of a small amount of straw mixed in with the vines when cooking them up. It takes some time and trouble to make pea vine hay, but this can be accomplished by judicious management and when done is well worth the effort and time required.

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