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THE PROGRESSIVE FARMER.

Largest Circulation of any Paper in the South Atlantic States.

INDUSTRIAL AND EDUCATIONAL INTERESTS OF OUR PEOPLE PARAMOUNT TO ALL OTHER CONSIDERATIONS OF STATE POLICY.

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PAPERS.

Progressive Farmer, State Organ,	Raleigh, N. C.
Caucasian,	Raleigh, N. C.
Mercury,	Hickory, N. C.
Sattler,	Whitakers, N. C.
Our Home,	Beaver Dam, N. C.
The Populist,	Lumberton, N. C.
The People's Paper,	Charlotte, N. C.
The Vestibule,	Concord, N. C.
The Plow-Boy,	Wadesboro, N. C.
Carolina Watchman,	Salisbury, N. C.

Each of the above-named papers are requested to keep the list standing on the first page and add others, provided they are duly elected. Any paper failing to advocate the Ocala platform will be dropped from the list promptly. Our people can now see what papers are published in their interest.

AGRICULTURE.

To prevent failures on the farm diversify your crops.

This is the time of year when the machinery left in the fields worries everybody that sees it except the careless owner.

Smut in corn cannot be remedied by immersing in some liquid, as it can with wheat, because it is not in the corn as it is in the wheat.

One man says that goats need about the same care as sheep and will live much longer; and, he might have added, jump a good deal higher.

If a growing young animal is fed only sufficient food to sustain life, there is not only the loss of food, but the animal is stunted, and often to the extent that no amount of feeding afterward will entirely eradicate the bad effects.

It may be well to remark that it cannot generally be known with certainty, when a new variety first begins to bear, whether the fruit will be of good quality or not. It usually takes several years for it to develop itself perfectly.

A thoroughly docile animal, whether colt or calf, saves one much trouble in the care of it, and is a more satisfactory possession. Neither is a well-broken colt an enigma to the buyer when he comes. Let it be handled early and frequently, and domesticated before maturity.

Pasture lands are very often badly managed; late and early pasturing injures the grass plants so that they never do their best; insufficient seeding allows the grasses to run out and degenerate and weed growths to take their place. Heavy pasturing demands top dressing. Spending neither energy nor money upon these fields is false economy.

If ready money is not available, the store account can often be avoided by growing something which can be exchanged through the season for such things as must be bought. A little time devoted to fruit, vegetables, chickens, or bees will often prove of much more value than the mere amount of money derived from the sale of the products by enabling one to avoid a debt.

THE RETENTIVENESS OF SOILS.

Prof. Crosby, of Michigan, has recently conducted some experiments to determine, among other things, the degree of retentiveness of moisture that exists in various soils. Sand, clay, loam and muck were used as the representative soils, and after being thoroughly kiln dried, and equal amounts of water being added to equal amounts of the several soils, the vessels containing the soils were exposed to the August heat from the 18th to the 26th of the month, inclusive. At the end of ninety-seven hours the sand was dry. At the end of 197 hours the clay had practically lost all its moisture—that is, 99 2 per cent. of it. The loam had lost 91 4 and the muck 62 5 per cent. In a general way, therefore, it will be seen that sand dries out a little more than twice as fast as clay; that loam retains its moisture longer than clay, and that muck holds moisture still longer than loam. While these general conclusions are not new, exact experiment with the four kinds of soils under precisely similar conditions showing their relative retentiveness do not exist so far as we remember.

Before you attempt to plant a crop, subscribe for a good paper that publishes agricultural matter.

FARMING AS A BUSINESS.

It is a remarkable fact, says the Oregon Agriculturist, but none the less true, that the successful farmers are readers of agricultural literature of all kinds. They make a study of their business, and by keeping posted on what others are doing in the farming line, are always able to take advantage of improved methods. There are many farmers who honestly think that they are not to blame because their cows do not yield more than 150 pounds of butter in a year, and other crops in like proportion. Because they work hard they feel they have done their full duty, and when they realize that they are continually running behind, become discouraged and say there is no money in farming. True, and there never will be for those farmers. In the commercial world a large percentage of the business men fail, largely due to incapacity. It takes just as much, if not more, ability to successfully run a farm as a commercial business. There was, perhaps, a time when it did not, but that time has passed never to return. In times of general depression the business of farming is no worse than any other business. There is money in farming for the brainy farmer, and there always will be. There is profit in a fruit orchard that returns $50 to $100 per acre, but unless a man knows how to care for his fruit trees so that they will yield good, clean fruit, there will be no money in it for him, and, according to his experience, no money in the business. A writer in an exchange says on the subject:

"The trouble is, not that farming is going to the dogs, and that the country has no more use for farmers, but largely because they are also so obstinately wedded to old ideas and methods. Business methods have been literally revolutionized during the last sixty years, and without complaint from business men; but the average farmer hates radical changes more than he hates sin, and never would change without the stimulus of something like financial ruin or starvation.

"If the reason of low prices is hard on farmers, it has its phases of good. It forces him to think, and that to the man 'sot in his ways,' is the most disagreeable of all work. He hates thinking, as applied to his business, and the methods of his grandfather or great-grandfather would still be in vogue, could he have his way."

To sow or not to sow wheat was once only a question within the bounds of the local grist mill, but it is now one in which India and the Argentine Republic figures as prominently and certainly. One year we experiment with wheat as a feed for swine, and the next wonder how we can afford to buy the seed. Really, the greatest need of the American farmer is more markets for his crops, rather than more crops for market.

RAISING PORK FOR BACON.

This country is fast becoming a nation of bacon eaters, and demand for bacon is very much greater now than it was only a few years ago. This demand leads to a well defined call for bacon breeds of swine and those breeds which can be depended on to produce meat well streaked with lean have a prospect of becoming very popular. The bacon made in America, says the Farm News, has hitherto been too fat to meet with great favor in the markets of the world. In Europe, Danish bacon has first place, while that of Canada is taken in preference to that from this country. This is because of the greater amount of learn meat in the product of these countries as compared with ours.

The American swine breeder has been paying most of his attention to producing weight without regard to what their weight is made up of, and, as a consequence American pork is largely pure fat, and it is not uncommon to find American side pork that has no lean in it. The favorite breeds in America have been bred to this weight ideal, until they are largely fat producers, and very few of them are good bacon hogs, and who desires to produce first class bacon must choose his breed carefully. A few years ago the Berkshire produced good bacon, but the rage for great weight and the habit of getting this by feeding heavily on corn to the exclusion or more nitrogenous foods, has made this breed a fat producer instead of a good bacon breed. It is altogether possible to breed back to the old time qualities, but this is a waste of time, and to meet the present demand, other breeds must be looked for. The Yorkshires are a first class bacon breed, that promises to obtain a popularity that they have not had because of this disposition to produce well streaked bacon. The Tamworths are also a good breed for this purpose and are largely bred in England for bacon, but in this country they have not been as widely introduced as the Yorkshires.

Feeding has something to do with producing bacon, and if the farmers of the country will feed more nitrogenous foods and not so much corn, they will go a long way toward making good bacon with the breeds now found on the farms of the country. While corn will probably remain the standard food for hogs, they should be given wheat or middlings, bran, oats, grass, milk and other lean-making foods, and receive less corn in their rations. If a hog is well fed, and by that we mean properly fed, so as to make size without being made fat, it can be finished on corn and make a very fair article of bacon, but if it has been grown and fattened on a diet that is almost exclusively corn, it can never be made to produce first-class bacon.—Wisconsin Agriculturist.

It is very common on some farms to keep the grindstone out of doors, sheltered only by the foliage of some tree in summer, but in winter exposed to all kinds of storms. These stones are always more or less porous. If they were not they would not make good material to sharpen metal cutting tools. When a grindstone gets wet and the moisture in it freezes, pieces of the stone chip off and the stone wears away unevenly, thus soon becoming of very little value.

SEED POTATOES.

It is now time to begetting the seed potatoes assorted and placed by themselves, and to think out our plans for the coming season. Of course, the most progressive farmers set aside their seed last fall, but a few still have the work to do, while the non progressive ones will wait until planting time, and then in the rush take anything and everything and hustle them into the ground with the sole purpose of getting them buried as quickly as possible, trusting to Providence to produce a nice clean crop of merchantable tubers. These later planters are not a few, and they are likely to quit the business in disgust after a few seasons' experience.

My experience is that the best sized potatoes to use for seed are the largest ones, cut to one eye and one eye in a place, the large sized piece of seed furnishing considerable nutriment to the growing plant, especially in a dry spring. Next to this I would select medium seed and would never plant small ones unless I dropped them whole and then very late in the season. When small seed is held until late it is apt to be much shrunken with but little vitality, and probably only one stalk will be the result, and, owing to the late planting, the yield will not be large, but as a rule the crop is quite uniform and on the whole may pay for the trouble taken.

The need of dipping seed to prevent scab is an established fact, and all successful growers now practice it. It has been proven that it not only reduces the liability to scab, but increases the yield of the crop to an amount more than sufficient to pay for its cost, the seed and some of the cost of production. It will therefore be seen that no progressive farmer can afford to ignore it The formula used is "to two ounces of corrosive sublimate (murcuric chloride) add two gallons of boiling water, using wooden pulp (paper or fiber) bucket Let it stand twenty-four hours, then mix with thirteen gallons of water." Some put the solution in a well-soaked up sugar barrel and put in the potatoes and after ninety minutes' soaking put on a cover and tie it down and then pour off the liquid in a tub. The potatoes are then spread out to dry, and the same liquid is used over and over until it is all used up. Large growers use a large trough and a wire scoop, soaking twenty or more bushels at a time, but the best way I ever tried is to pick the seed in the fall, in bushel, all slatted crates, load the crates into a wagon, carry them to the cellar, stack them up so that the air can pass all around them and when the time comes to dip set the crates and all in the solution, using a trough large enough to hold ten crates at a time. When the time is up, lift the crates out on a drain board and cut at leisure, as they will dry out in the crates. After cutting, put them back in the crates and stack them in the barn ready to plant, load the crates and all into the wagon and set them off one at a time at proper intervals in the field.

Seed will keep in crates better than in any other way, and if this method is properly followed, there is no need of sending North for seed. I have found that to soak the seed twelve hours did not hurt it in the least, although the rule is ninety minutes. Many throw away the seed end. This end grows the very first sprout, is the most vigorous and should never be thrown out, as it always produces the very largest stalks and tubers.—C. J. Norton in Western Farm Journal.

Many heavy clay soils are improved by a mixture of sand with the surface soil. It is especially valuable for melons, cucumbers and early vegetables. A very slight covering of sand, less than an inch in depth, will suffice if the land is not plowed very deeply. The pulverization of clay soils is greatly helped by having some sand mixed with them, as this gives a chance for water to soak into the soil, and for frost to penetrate deeper. This also is greatly aided by under-draining, which almost all clay soils need.

HORTICULTURE

PROFITABLE IRRIGATION BY HYDRAULIC RAMS.

Six years ago I purchased a hydraulic ram, 900 feet of two inch galvanized iron pipe, about as much more of one-inch, and two iron tanks with a capacity of 150 barrels. These have been used with very good results for three summers out of the six. The other three summers we had nearly enough rain without any irrigation. The water supply for this irrigation is somewhat limited, being only a small stream fed by a few springs; therefore we built a dam and made a reservoir, which covers about half an acre and is five feet deep in the deepest part, and in winter furnishes ice for dairy and family use. The drive pipe from pond to ram is four-inch galvanized iron pipe, the fall is 6½ feet, the discharge pipe two-inch from ram to tanks, and the tanks 700 feet distant, 60 feet higher on top of a hill. This discharge pipe, which I buried under the ground between ram and tanks, also extended over the hill and down the other side for about 200 feet, and had one-inch connections and valves for watering. These did not discharge water fast enough, so this fall have replaced them with two inch. This plant has been sufficient to water three acres with what rainfall we have had the last three dry summers. While watering on the side of the hill between ram and tanks, the ram forces more water than it will into the tanks at the top of the hill, as it does not have to raise the water so high. I have also found that the ram forces more water on the opposite side of the hill from the ram than it does at the tanks at top of the hill, for the reason that the water acts as a cyphon, thus assisting the ram. This whole outfit cost about $600, but has more than paid for itself in increased strawberry crops.

I have found by experience that irrigation has been such a good insurance against short periods of drouth, that this fall I have purchased another ram of the same kind and size as the first ram, 1,500 feet of two inch galvanized iron pipe, drive pipe, valves, fittings, etc., together with two galvanized steel tanks with a capacity of 360 barrels. On the same stream, about 200 feet below the first ram, I have built another dam, and am going to put in the new ram. This ram will have a much larger supply of water than the first ram, as there are several springs between the first and second ponds, and the second ram will have all waste water from first ram. The new ram will also force water into the same discharge pipe as the old one, thus it is necessary to lay discharge pipe only a short distance. The fall from pond to ram will be 6½ feet. The two inch pipe, underground, has been extended 300 feet in one direction and 900 feet in another. On the long line, on a hill a little lower than the first tanks, and about 700 feet distant, I have placed the new tanks, from which I can irrigate several acres of small fruit near by.

Now a few words on an entirely different method of irrigation which I used on another part of the farm. On land which I used for pasture are some streams of spring water. I found, by damming up two streams and making two ponds, and plowing a furrow from one pond to the other, and also a furrow from pond No. 2 to a field of strawberries which was in an adjoining field, and then running the water between the rows, that I could irrigate quite successfully. Last summer I had one acre of strawberries which I irrigated in this way with good results; perhaps just as good as in the other method where the water was sprinkled on. Last summer, while irrigating this acre, I used only the water which collected in six hours each day, thus showing that at that time there was sufficient water to irrigate four acres. A few weeks since I have built four small dams on this land for storage of water to be used on the adjoining land. In a summer like the past, I think there would be sufficient water in these ponds and streams to water five acres.—E C. Warner, Connecticut, in American Agriculturist.

TOP DRESSING SMALL FRUITS.

I have experimented with fertilizer for many years on all kinds of crops and at all seasons of the year, but the best paying application I ever made of it was as an early spring top dressing for strawberries, blackberries, dewberries, raspberries, etc. It brings large returns and brings them quickly. For only two or three months expires from the time the expense is incurred till the fruit crop is gathered and sold. I would no more think of raising these crops without liberal top dressing than I would attempt to carry my stock through the winter without food. It is as unwise to starve one as the other.

Even where land has been well manured the previous year, top dressing not only pays, but is more essential, or at least, more profitable than if the soil was poor. For on good soil there are strong, vigorous plants with a vast ramification of root growth. And every atom of fertilizer matter is carried down by the spring rains and is just in the right place to be at once appropriated and used to the best advantage.

When the heavy yield of small fruits is considered, it is easy to see how essential it is that they should be constantly and liberally fed. There are authentic instances of strawberries, under the highest system of culture and manuring, having produced at the rate of 45,000 quarts an acre. This is a prodigious quantity of fruit—enough to cover the land an inch or more deep. Of course, it is only the most favorable conditions that a yield of this magnitude can be expected. But that a very large yield, indeed, can be obtained by any man of average intelligence, my own experiences have fully demonstrated.

I have never attained 45,000 quarts an acre. Only by one man and only in one instance has this enormous limit been reached. But I have had them yield at the rate of over 20,000 quarts an acre. I had a whole field to average about 11,000 quarts an acre. And even this field had rain-galled places in which the soil had been more or less washed off. This result was attained by liberal manuring at all times, but above all by heavy top dressing with highly soluble fertilizers rich in potash.

As I have grown fruit for over twenty years and have devoted eleven years exclusively to experimenting with a practical end in view always, I have had three objects in view: To discover and keep abreast of all that is best as to varieties of fruit; to ascertain and apply the most economical and effective modes of culture; and to find out the system of manuring that would pay the best.

But to return to the subject that I started out with, top dressing small fruits: Go over the field as soon after January 1st as the weather will permit and with hoes scrape out all weeds. Big results must not be expected where a dense mass of weeds is left to appropriate the plant food and moisture at the critical time, just when the fruit needs plenty of both. If necessary run a horse cultivator, or better still, a shallow running "sweep" between the rows, remembering always that the destruction of weeds and not the deep stirring of soil, is the object in view. The deeper you go the more plant roots you cut, the less nourishment the plant will get, and the less fruit you will gather.

The weeds all scraped out, I apply broadcast over the dormant plants (never sow fertilizer on growing plants, but around them), the following mixture of my own preparation. It pays me better than any commercial fertilizer yet found.

Per acre: 300 lbs. kainit, or 200 lbs. muriate of potash; 200 lbs. dissolved bone, (bone dust is not soluble enough for this purpose); and 50 to 100 lbs. nitrate of soda.

Break all lumps in these and work in a dry place (the dirt floor of a barn is best) a unform bed of these ingredients, on that the other and on top the third ingredient, all in layers as near uniform in thickness as possible. This is to insure thoroughness in mixing. Mix thoroughly with hoes; cutting squarely down through the three strata as you draw off each hoe full to stir and mix it. In short, use all your care, judgment and ingenuity to perfectly intermingle the whole mass.

In sowing also take pains to distribute evenly over the rows or beds containing plants. Even the most careless mixing and application of these chemicals will pay, but as with all other things, the better the job the bigger the yield.

There is no danger in them even when used in much larger quantities. I have used more than twice the above quantity.

When large quantities are used it is best to apply it over the middle and all and not confine it to the beds alone. This mixture is rich in potash and phosphoric acid, just what is needed to make the finest fruit and plenty of it. O. W. BLACKNALL.

Kittrell, N. C.

The mystery of nitrification is now so well known that any farmer can understand it. Plants live on nitrogen, but apparently have no power to take it either from the air or the soil. Here the nitrogen-bacteria get in their work. These microbes, like atomatic sponges, take in the nitrogen from the soil and the air, and transform it into nitric acid, in which form the plant can consume it. A soil may be destitute of nitrogen and need both that and the microbes, or it may lack only the microbes, in which case a supply of them renders the field immediately fertile. Stable manure has little nitrogen but swarms with the germs of microbes. Add to a field where clover seed won't "catch," a light dressing of soil from a plot where clover thrives to perfection, and a catch of clover seed is almost sure to result.

CATAWBA COUNTY ALLIANCE.

This body met with Crowdertown Alliance last Friday and Saturday. The attendance was not very large. Four or five Subs were not present at all. A committee was appointed to look after them.

The first day was devoted to the regular routine of business.

Brother John W. Robinson, who was managing the funds contributed to Bro. N. E. Propst, reported the following amounts received with more subscribed:

Crowdertown Alliance, $36 50; other Alliances, $11 50; outsiders, $10.50, making total paid in, $56.50.

The amount may reach at least $70. The several Alliances could have done better if they had tried.

The proceedings of the meeting and the discussions seemed to elicit much interest.

The brethren of Crowdertown Alliance had prepared for a large turnout. Their rations were fine and in great abundance. It was our pleasure, in company with Hon. L. R. Whitner and Capt. J. H. Sherrill to spend Friday night with the pleasant family of Mr. N. E. Propst. A good crowd came in and we had a pleasant time.

The next meeting will be held with Catawba Alliance. Let every Sub. begin now to work for it so as to have a good delegation.—Hickory Mercury.