

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

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Put Your Advertisement in Rich Soil.

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PAPERS.

Progressive Farmer, State Organ, Raleigh, N. C.
Caucasian, Raleigh, N. C.
Hickory, N. C.
Mercury, N. C.
Beaver Dam, N. C.
The Populist, N. C.
The People's Paper, N. C.
The Vestigial, N. C.
The Plow-Boy, N. C.
Iroquois Watchman, 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 do so will be dropped from the list promptly. Our people can now see what papers are published in their interest.

AGRICULTURE.

Try to improve your farm methods and business management this year. Remember that it is not all in work, for many of the hardest working people in all lines of business are the most unsuccessful.

The art of handling tobacco is one of the most important points in successful tobacco culture. Proper handling adds greatly to the appearance and value of the crop. On the other hand, an extra good crop may, by poor handling, be made to fall below the ordinary.

One result of a possible war with England would be reasonably sure: This country would lose a good slice of its foreign trade in cotton, breadstuffs and provisions. South America, Australia, India, Russia and Egypt are able and willing to feed and clothe Europe. While we were fighting, these nations would be at work securing that market. It was while Americans were fighting among themselves that England won our shipping trade. We might win that back, but what would it profit the American farmer if American ships carried foreign food to Europe?

If you have not hitherto kept accounts showing the income and expenditure from your farm, commence at once to do so. Place a fair value on all that is upon the farm on the 1st of January, and enter these items in a book, and then keep an accurate record of all you spend upon and receive from the farm. Open an account with each crop and with your live stock, and thus know exactly what each costs. This will enable you to know at what price everything must sell to leave you a profit. In this way the small leaks are detected and can be stopped.

The Short horn breeders have done a sensible thing in preparing to make a separate breeding class for such cows of their breed as show marked ability as dairy animals. Many Short-horn cows are good milkers; in fact, you will find traces of Short horn blood in many of the best grade dairies. The breed, as a whole, has been developed on beef lines. The scale of points, prizes and other incentives to improved breeding, have all been in the direction of meat production. Naturally, dairy qualities have been made secondary. Now it is proposed to breed the best dairy animals to a new standard.

DESTROYING WILD ONIONS.

Do you give me some remedy for destroying wild onions? They are about to take some of my land.—W. R. W., Lewiston, N. C.

[Answered by W. F. Massey, Horticulturist, North Carolina Experiment Station.]

The only practicable way to get rid of wild onions is by means of a systematic and short rotation, and the use of smothering crops. Plow the land before any top sets are formed, and sow field peas, two bushels per acre. Cut the peas for hay, and chop the land over with a cutaway harrow, and sow in August crimson clover at the rate of 15 pounds per acre, with a thin scattering of winter oats. Cut oats and clover together for hay, and put the land in corn, and follow with winter oats and red clover. By the time this oat crop comes off the onions will be about gone.

THE FARMER AND THE PAPER.

The work that is accomplished by farm papers in uplifting the agriculture of the country can never be told. The silver veins in Idaho and the gold in the mines and streams of California are not sufficient to represent its value. Silently their teaching falls into the soil, and we behold the harvest in the better returns that are reaped in the fields and gathered in the stalls. And so mighty is the influence of this teaching that it is gradually uplifting defective practice. It is enabling the farmer to place the foundation of his methods on the bed rock of correct principles. It is shedding a new light and a new interest around his work which too frequently in the past was looked upon as cheerless drudgery. It is transferring the burden of back-breaking labor to the horse and the machine or implement which he draws. And it is bringing to him greater gains than he could possibly have secured without the influence of such teaching.

The benefits are great; the price is small. Fellow farmers, we complain of depression and low prices for our produce. We murmur if we get no profit on our products. But do we ever stop to reflect that the publisher of the agricultural paper seldom gets any profit from the subscription revenues of his paper? It usually costs him more than the subscription price. His profits come from the advertising pages. Let us think of these things as we enjoy the luxury of the farm paper that comes to us from week to week, and as we think of them, let us try and do something to help the men who are giving us goods below cost.

Take one issue, and what do we find? We see there information on its every page that would have rejoiced the hearts of the readers of a hundred years ago. We are almost sure to find in it something bearing on our life work that is worth far more than the subscription price of the paper for a year. It keeps us so informed as to agricultural discovery, that in our work we can keep abreast of the times. It summarizes knowledge in many instances and thereby saves an immense amount of labor on our part to get at the conclusions reached. And in a single article it frequently gives us the cream of the results of the labors of a life-time spent in some special work. Are we not under some obligation to the agricultural press? Have we no duty to perform by way of helping on the good work, other than that of remitting the subscription price at stated times?

And the help brought by the agricultural press is not confined to those who live upon revenues obtained from the farm. Farm papers have probably helped none so much as the teachers of agriculture. The agricultural teaching of to day is not based upon the knowledge obtained from standard works. These, as a rule, are yet to be written. It is rather based, first, upon the experiences gleaned on the old farm at home; second, upon the experiences of men eminently successful in their respective lines of work; and, third, upon information gleaned from the agricultural press, and the last mentioned is the most prolific source of such information—at least it has proved so to the writer. Go on, then, publishers of farm papers, weary not in the good work; you are building better than you know.

Perhaps nine out of every ten farmers in the land do not take an agricultural paper at all. They do not take it, because they do not know its value. Think of the great disadvantages under which they labor. Is there no duty that we owe to these our brethren?

Have we ever tried to persuade them to take an agricultural paper?

The old year is dead and gone and a new year has arisen from its ashes, and as we step across its portals, we are doubtless resolving to be more helpful to our fellows than we have ever been, and in carrying out these good resolves, let us remember our duty to our fellow-farmers who take no agricultural paper. Tell your neighbor the worth of such a paper, and persuade him to take it. You do him a greater kindness than if you gave him gold. This article has been penned in the hope that many farmers will thus be aided by those who can render such assistance. Farmers, will you not give such aid? One new name added by every subscriber—see what it would mean to the publishers, and think of what it would mean to farmers and farming!

THOMAS SHAW,
Minn. University Expt. Farm.

SOUTHERN FARM LANDS.

Is not an acre of land in the South that will produce in a year more revenue than an acre in Iowa, Ohio and New York worth intrinsically as much? And yet, while land in the last named and other Northern States is held at \$30 to \$100 an acre, land in the South, capable of yielding more money in a year, can be had for from \$2 to \$10 an acre. The price is low because there are millions of acres more than the present population can cultivate. As the population increases through immigration, prices will rise. Prices are now much higher than formerly in some localities. Can the Northern farmer afford to go on cultivating high-priced land that will never increase in value, when for a tenth to a fourth of the value of his farm he could get another in the South on which he could make more money and live in more comfort, and which would be getting more valuable every year?—Southern States Magazine.

MAKE YOUR PLANS.

The month of January being the one in which, probably, as a rule, the least work can be done out of doors on a farm in the South, is a most convenient one for a review of the results of the last year's work and a planning of the work for the coming year. In this review, failures, as well as successes, should receive at least equal consideration. The lessons taught by failures are often more valuable than those taught by successes, and it is certain that they are usually much more deeply impressed on the memory, and therefore not so likely to be disregarded. They usually touch the "pocket nerve," and this is a most sensitive one. Successful farming being so largely dependent on climatic conditions which vary from year to year, it is impossible to lay down hard and fast rules deduced from past failures or successes; but these can and do establish principles which have great bearing upon future operations, whatever may be the climatic conditions. The failure to raise a good crop of wheat or corn in a very dry year, teaches us that these crops require a certain amount of moisture for their successful growth, whilst a failure to make a good crop in a very wet year equally teaches us that an excess of moisture is prejudicial. These facts put us upon enquiry as to how this moisture can be best conserved in the event of another dry year coming upon us, and how injury, from excess upon wet, can be best prevented if that should be the character of any particular year.—Southern planter.

BEES IN WINTER.

The honey-bee has nothing of the nature and constitution of the polar bear. Although bees have some times been known to winter under seemingly most adverse conditions, yet, on the whole, the more protection we give to them the surer we may bring them through the winter all right and the surer will be the honey crop, writes a correspondent of the Farm and Fireside. Continuing, he says: A person may be able to endure zero weather without an overcoat; still, he would probably take comfort with one—possibly live longer for wearing one. Even should your bees be in unsightly box hives, give them a little protection. If your hives have an empty chamber in the upper part, fill in some dry moss, fine hay, chaff, or something of that sort. Set up corn fodder around the hives, but be sure to give or leave a chance for the bees to go out and in whenever it becomes warm enough. Instead of setting up corn fodder you may also, or better, place each hive in

a somewhat larger box of any description and fill around with dry sawdust, planer shavings, moss or chaff, in such a manner as to provide an exit for the bees. Put a rainproof cover over the whole. Next winter when it blows and snows you will feel all the better for it to know your bees are comfortable. Very likely, too, you will take a greater interest in your bees next year and make them pay better. Possibly one of the boys, or even the girls, may get interested in the bee business, and it may start him or her into a way of making a comfortable living in the near future.

HORTICULTURE.

SOME LARGE STAMINATE STRAWBERRIES.

Correspondence of the Progressive Farmer.

After the advent of the old Wilson, now run out, the earnest efforts of propagators to produce a variety which was a staminate or perfect bloomer, and at the same time highly productive of large berries, long met with only partial success. The reason is evident. The staminate bloomer having a double function to perform, that of producing both stamens and pistils (both pollen or impregnating dust are functioning organs) its fruit producing power is almost sure to be much less than that of the pistillate or female bloom. When a staminate (or double sexed variety) turns out to possess the productiveness of the pistillate, it is the exception that proves the rule; and in this case a very large exception.

But it was imperative to find a pollinizer for the largest pistillates like Greenville & Co., a variety rich in pollen, which bloomed just with them and was also productive of large berries matching the pistillates in size. After testing all of promise in the past ten years, I find Woolverton, Tennessee Prolific, Gandy Belle and Lady Thompson the nearest perfect. They are rich in pollen, will thoroughly pollinize the pistillates and come nearest matching them largest in size. Thus not lessening their market value by an admixture of swell berries.

Where it is not desirable to plant pistillates, the above four varieties are highly profitable market varieties. I have no monopoly of them. They are generally grown and well known.

O. W. BLACKNALL,
Kittrell, N. C.

A NEW CABBAGE PEST.

The cabbage maggot, the larval form of a fly, *anthomyia brassicae*, is the most destructive pest of the cabbage in Europe, where it sometimes destroys whole fields of young plants. It has been occasionally troublesome in the United States since 1846. It has the past spring appeared in alarming numbers in a portion of the trucking section of this State.

The fly is slender and gray colored, rather smaller than the common house fly. The female lays her eggs in early spring on the roots or stem of young plants, both in the seedbed and field. The eggs hatch out in about five days. The maggots eat off the young rootlets, producing what is often called "club foot;" they also bore into the larger roots and stems, causing the plants to turn yellow and soon after die, or remain as stunted plants which refuse to head. The flies continue to breed all the summer and pass the winter as dormant pupa in the hollow stems of cabbage and stumps if left in the field. Some of the winged insects also hide away in collars and places where cabbage is stored, but the greater portion of the first brood of flies come from the dormant pupa in the field. The maggots feed by preference upon the roots of cabbage and other cruciferous plants—collards, kale, cauliflower, radish, mustard, etc.; but they breed also in stable manure piles, human excrement and rotten fish.

REMEDIES.

The first and most essential remedy is to clean cabbage flies thoroughly of stumps. Either plow these under at least six inches deep and then roll the ground, or rather the stumps and compost them with lime. Never follow cabbage by the same crop on any field. If the maggots appear on plants in the seed bed, apply a good dressing of lime or muriate of potash to the soil, or sufficient kerosene emulsion to wet the ground one inch deep. If plants in the field are attacked, take a dibbler or sharp stick and make a hole near each plant as deep as the roots of the plant and about one inch in diameter. Fill this hole with kerosene emulsion. If the emulsion does not wet soil on all sides of the plant, make and fill another

hole on the opposite side. Usually, one treatment will be sufficient for each crop, but if neighboring fields are left untreated, they will breed flies so fast that a second treatment may be necessary after ten days. The emulsion must be thoroughly made. But it will be safe in any case if it is not allowed to touch the leaves of the young plants.

THE KEROSENE EMULSION.

Hard soap, 1/2 pound.
Water 1 gallon.
Kerosene oil, 1 gallon.

Directions.—Shave the soap and boil till all dissolved in the water. Remove from the fire and pour into the kerosene. Churn this or pass it through a sprayer or syringe until it becomes a thick cream and the oil does not separate from the soap. Dilute with nine times its bulk of cold water before using.

This remedy is equally as good for the onion maggot, cut worms and all other burrowing insects. When thoroughly made it will not burn the plants, but if any free oil rises to the top, it will burn.—Gerald McCarthy, Entomologist, N. C. Experiment Station.

POULTRY YARD.

The Experiment Station of North Carolina has established a poultry department in connection with the Station and placed it under the charge of an expert poultryman with the view of thoroughly investigating and reporting upon the capabilities of North Carolina as a poultry section, and the adaptability of the different breeds of poultry to the requirements of the people. We congratulate the Station on this action. There is a great future before North Carolina and Virginia as producers of chickens and eggs for the Northern market, and the farmers of those States should have placed before them all the information which the experiment stations are capable of affording on the subject.

MEAT THAT IS WASTED.

A large quantity of excellent meat suitable for poultry is wasted in the country every year. Old horses that are intended for destruction are as suitable as ordinary beef for poultry. More money can be realized from a useless horse by taking off his hide, feeding the meat, and using the bones for fertilizer, than by other mode of disposing of them. Any kind of meat will answer for poultry. In Texas, rabbits are used because they are plentiful. Horses that go to the rendering establishment are converted into "ground meat" and sold in that form. They can be used to better advantage when the meat is fresh. A bone-cutter will reduce both bones and meat to a fineness suitable for poultry, and increase the number of eggs. In winter, such meat will keep for a long time. It pays better to use horses for a large flock than to buy grain, as the extra number of eggs secured will more than return the cost of the meat. Meat will induce the hens to lay when other foods fail. Give more meat, but avoid that which is very fat.

FEED FOR POULTRY DURING THE WINTER.

For the successful production of eggs at any season of the year, it is necessary that the hens should have a mixed animal and vegetable diet. During the summer months insects, worms and grubs are so abundant that fowls having a range can easily meet the requirement for animal food. During the winter, this necessity must be supplied to them if the best results are to be had. Meat scraps and green bones are the best substitute, and should be fed at least twice a week—better three times. Meat and bones, at three cents per pound, are cheaper than grain as egg producing food, and should be fed liberally. Break the bones small enough to be swallowed, and they will be eaten quickly.

A fair comparison between grain and meat will show that meat is really cheaper than grain, because it increases egg production. It also contains less waste. A hen kept on grain appropriates a large share of it to the storage of fat, which is not desirable, while lean meat is almost entirely nitrogenous. When farmers feed more meat and less grain, they will have larger profits from poultry. The introduction of the green bone cutter also lessens the cost, as cheap bones and meat can be cut fine and fed without the necessity of cooking the meat. The farmer should not consider any kind of food expensive if it makes the hens lay. The most expensive food is that which produces no eggs.—Southern Planter.

THE DAIRY.

A SERMON.

Subject—Air-Churns.

Correspondence of The Progressive Farmer.

Text: "Remember the air-churns and eschew him." From last sentence, sixth paragraph of "Dairying Fallacies," by T. H. Hoskins, M. D.

Dr. Hoskins is, and has been for many years, a sound philosopher. He has always abounded in good common sense—or horse sense, if you please. When he strikes he hits the nail, plum on the head. He is a terror to humbugs, fakes and frauds.

This is what he says in "Dairying Fallacies" about air-churns: "For some time it was thought (and churns to carry out the principle were introduced) that the passage of air into cream during the process of churning promoted the separation of butter. This idea is now exploded, and the churns are found only in garrets. I allude to it only to show, in the light of what will be hereafter stated, how far away from any true conception of the facts the minds of many must have been when such a theory could have had currency."

Further on in the article quoted from he referred to the "Current" theory of cream raising, and showed the absurdity of it. He closed the paragraph as follows: "Whenever you hear one of these 'current' theorists holding forth, you will always find that he has a 'new patent setting can' in the anteroom, which he would like to show you. Remember the air-churns and eschew him."

The fools are not all dead, and just so long as some of them are alive, and especially about once in a certain number of years, when a new crop has matured, the air-churn man will come around. It is now several years since an air churn has been offered to the public, hence the present may prove a good time to spring that article once more on the dairy public.

The writer was reminded of this matter by receiving from Chicago a circular relating to an air-churn. The circular claims for that particular air-churn all the old claims made a score and more of years ago and exploded by Dr. Hoskins, June 29th, 1878, in the Rural New Yorker.

When an agent comes around with a dairy utensil of any kind for which he makes absurd claims, "remember the air-churn and eschew him."

F. W. MOSELEY,
Clinton, Iowa.

NATURAL COLOR OF BUTTER A MYSTERY.

Prof. Van Slyke, chemist for the New York Agricultural Experiment Station, is authority for the statement that we know nothing whatever of the composition of the natural coloring matters in butter. Whatever they may be, they are mixed or united with the fats so as to defy detection. So far as chemists have been able to find out, none of the several compounds of which either milk or butter is composed is of any hue except pure white, so that the coloring cannot be a natural part of the fat. Some have suggested that color in butter is due to the shape and size of the fat globules; in other words, that light is the main factor in color development.

THE MILK MAN MAY BRING DANGER.

Dr. G. W. Stevens, of Liverpool, in an address to an audience of sanitarians, made the following remarks: For a moment, referring to milk as a cause of disease, I am strongly of the opinion that it may leave the dairy perfectly pure and innocuous, to be poisoned subsequently by exposure to foul emanations and contagia. I have elsewhere referred to the danger to which milk is subjected during the milkman's round from door to door. The cans are usually taken into the house and never entirely emptied. I know of one instance where the can was actually taken into the room where a case of enteric fever lay. I afterwards ascertained that there were three cases of this disease in the same street, all supplied by the same milk man. The dairy and all connected with it were beyond reproach from a sanitary point of view. Putting actual disease out of the question, what protection, may I ask, have we while our milk is liable to be exposed to the foul gases and drainage emanations of many houses? The absorptive power of this fluid is well known to you.

Your Alliance organ needs your help. Shall we be disappointed?