

PROGRESSIVE FARMER

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THE PROGRESSIVE FARMER is the Official Organ of the North Carolina Farmers' State Alliance.

PRACTICAL FARM NOTES.

Written for The Progressive Farmer by the Editor, and Guy E. Mitchell.

We learn from Farmers' Voice that a farmers' grain company has been organized in the southern part of Adams county, Nebraska, and the farmers hereafter will ship their own grain. They expect to handle this season's crop.

Soy bean meal is a meritorious feed. An experiment at the Hatch (Mass.) Experiment Station led to the conclusion that soy bean meal is a better feeding material for dairy cows than cotton seed meal. The soy bean meal produced more milk, richer cream and better butter.

The typical attack of equine distemper requires very little treatment out of easily digested food, good ventilation, absence of draft, rest and quiet. Rectal injections of cold water help to lower the temperature and at the same time to regulate the bowels. But good nursing is the principal treatment.

In our timber belts a large crop of acorns is expected this fall—welcome news to many hog raisers. The acorn crop is of vast benefit to farmers but through lack of a little attention it is allowed to injure or kill many hogs. Acorns are an astringent of a tannic nature and unless some food which tends to loosen the bowels is fed in connection with them they may cause constipation to such an extent as to seriously retard the growth of if not kill, many of the hogs. If liberal quantities of squashes or pumpkins are fed no such condition is likely to result.

A Boston commission merchant makes the following statement to his customers: "It looks now as if the apple crop in this section would be almost a failure. The best crops this season appear to be in New York, Virginia and the Ohio valley States. If nothing happens England and Europe will have good yields. Take the United States as a whole, it looks to me as if the coming apple season would be the most profitable for some time. The conditions are about the same as in 1894. At this date the conditions are favorable for a 'just about right' crop, with conditions favorable for conservative operations. And there will probably be just enough export demand to keep our local market steady throughout the season."

"Ladybug, ladybug, fly away home," is a line familiar to most children who are taught not to hurt the pretty bug as she is a friend of the garden; and this is strictly true. The ladybug does great damage to insects which themselves destroy the products of the garden—labor. Plant lice, for instance, like most insects, have certain natural enemies which tend to keep them in check. The ladybirds or ladybugs are, by far, the most important factors in the destruction of plant lice, as both the adults and young feed ravenously upon them. There is a notion prevalent that ladybirds, in some way or other, produce plant lice. Natural laws will not permit such a state of affairs. Like bees like in the insect world just as presently as it does in the higher animals. The progeny of a ladybird is always a ladybird like the parent insect. The young of a ladybird, how-

ever, looks very different from the adult. In fact, the young of some species resemble minute alligators in general appearance, and are gaily colored. They feed almost entirely upon soft bodied insects.

In the current issue of Home and Farm, Mr. M. S. Perkins calls attention to a fact which we have often attempted to emphasize—that the farmer to find pleasure in his work must understand the natural laws which effect his work; must realize that it is some thing more than mere muscular exercise. As Mr. Perkins says:

"If we can only get to understand some of the wonderful truths of natural law as applied to questions of tillage, live stock, husbandry, etc., we find that much of the drudgery of farm work disappears. That is, we must work hard just the same, but interest in our work, occasioned by increased intelligence, takes off much of the discouragement of mere thoughtless work. Mental stimulus relieves and facilitates the performance of hard, manual labor. One good book so studiously perused that its contents are fairly memorized by the reader, is better than two hastily skimmed over, and as soon for gotten. I think every farmer should have a library of a few volumes, treating in a thorough way of the great and fundamental truths of agriculture."

Would there were more farmers with the same views.

In such a common crop as field corn there are wide divergences of opinion as to cultural methods. The Indiana Station has experimented with corn for a series of many years and reaches the following conclusions as relating to conditions at the experiment farm:

Planting corn early in May has proved best as a rule. The greatest average yields of both ears and stalks have been obtained when the stalks stood 12 to 14 inches apart.

Thick planting has reduced the size of the ears and the per cent. of grain. Thick planting has in dry seasons produced the heaviest yield of stalks and the lightest yield of ears.

The yields of corn from cultivation one, two and three inches deep have been about equal.

Cultivation four inches deep has considerably reduced the yield of corn.

Heavy applications of manure and fertilizers have not proved profitable in continuous corn culture.

In continuous corn culture the effect of a heavy application of fresh horse manure has not been exhausted in fifteen years.

Cultural implements differing much in construction and action upon the soil have produced nearly the same yields of corn.

Of the several cultural implements under trial, preference is given to the spring tooth cultivator for soils similar to that of the station farm.

Hill and drill plantings of corn have produced practically the same average yields.

Millet, says a bulletin of the Agricultural Department just published, is fed principally as a hay and soiling crop. The forage ranks well with that of other grasses in the nutritive content, and its palatability is about that of the average for the coarser sorts. For digestibility, millet forage compares favorably with that from other coarse grasses.

Already widely grown as a hay crop, millets deserve more general use for soiling. They are particularly valuable for feeding to dairy cattle, young stock, and sheep. There are many sections of the country where this crop can be made to supplement the pastures in such a way as to allow a material increase in the number of stock that can be kept on the farm. On account of the heavy yield of forage and the good quality of the product, millets are excellent grasses for use in the silo. Frequently a good crop of millet can be raised under conditions which would not admit of growing corn for ensilage, and in such instances it becomes of especial value. One of the best methods of preserving this crop is by the use of the silo. Those who have tried this method have obtained excellent results. A fine quality of ensilage may be made by using barnyard millet and a leguminous crop like soy beans or clover. The seed of the foxtail millets is widely used as food for fowls and birds, but is seldom fed to stock. It has, however, been used in feeding young stock, such as calves, with a fair degree of success. The seed is an excellent food for laying hens.

FARM AFFAIRS.

WHAT SOME OF OUR EXPERIMENT STATIONS ARE DOING.

Mr. G. H. Turner Tells of His Visit to the Experiment Farm at Southern Pines.

Correspondence of the Progressive Farmer.

Most of our more intelligent and progressive farming brethren are becoming, through the medium of the experiment station bulletins of their respective States, pretty well posted on the extremely valuable results obtained from said experiments; but there are very few of them that have the least idea of the degree of nicety and precision which must continually be exercised in order that the experimenter may arrive at an absolutely just, accurate and unerring decision in regard thereto. We were forcibly struck with this fact during a recent visit we were fortunate enough to make to the Experimental Farm of the North Carolina State Horticultural Society, located at Southern Pines, N. C.

The object of the work carried on at this experimental farm is to determine the proportion of the different fertilizing ingredients—nitrogen, phosphoric acid and potash—necessary to secure the best growth and development of orchard and garden fruits and other agricultural and horticultural products, and also to discover the best treatment for the soil in order to produce this result. No commercial brand of fertilizer is used in these experiments, but fertilizing ingredients are employed both singly and in various combinations; in fact, in almost all possible combinations; and the precision exercised in the carrying on of these experiments, even down to the most insignificant minutiae or smallest detail, guarantees the accuracy, reliability and value of the final results reached and conclusions drawn.

As an instance of this precision, even in what seemed to us to be quite an insignificant and comparatively unimportant matter, we would call the attention of the reader to the fact that every plowhand carried with him to the field an empty sack. Now, we had become quite accustomed, during our travels over the States of North and South Carolina, Georgia and Alabama, to seeing empty sacks strewn around in all directions; mostly fertilizer sacks that had been carried to the field full, but had been emptied of their contents. Others had been carried to the field, or rather, orchard, to put the curculias in when jarred off the fruit trees; but these particular sacks had been carried to the field for the express purpose of putting the droppings of the hoes in, which were scrupulously gathered as fast as dropped.

This extreme nicety, to us, (although we carry on an experimental farm of our own for the purpose of testing all the various fertilizing agents that are found on the market, side by side, singly and in various combinations, to gether with their effects upon different crops and soils), seemed almost superfluous; yet, absolutely accurate results, and deductions therefrom, could not have been obtained without being thus particular, even in the smallest and apparently most insignificant of details. On our own farm we would have been inclined to let the droppings lie right where they were voided, thinking that in the run of a year about an equal amount of manure would be dropped by the plow animals on the unfertilized as upon the fertilized plots, or upon one fertilized plot as upon another; and this would be the reasoning of nineteen twentieths of our brother farmers, but by being thus nice, precise and particular, the element of "chance" is eliminated, and an almost absolute certainty takes its place. Again, when looking over the barn and outbuildings, we found the year's pruning of vine and tree mostly tied up in bundles and stored away. We asked if they were going to propagate from them, but were told that they would be sent to the State Chemist at Raleigh as soon as dry to be analyzed for the purpose of finding out the amount of plant food removed from the soil in the formation of that amount of woody growth.

Field experiments with fertilizers have been carried on, more or less, at almost every experiment station in the United States, and much good has been accomplished in this direction; yet, none of the stations is doing as effective, complete, exhaustive and thoroughly reliable work along these lines as is the Experimental Farm of

the North Carolina Horticultural Society at Southern Pines, North Carolina. This is mainly because there is nothing there to distract the attention or draw them off from the main points to be determined, as the experiments carried on there are experiments with fertilizers exclusively. Up to date the experiments have been confined exclusively to fruits and vegetables, and all who are living in the long leaf pine belt, who are engaged in raising either fruits or vegetables for market, and whose lands are very sandy, loose, open, mellow, porous, or comparatively poor, would do well to keep posted as to the work that is being done at this Station in their behalf.

G. H. TURNER.
Burgess, Miss.

A little thought of, but nevertheless important, feature of Farmers' Institutes is alluded to in the following item from the Portland Oregonian:

"Another advantage growing out of the Farmers' Institute lies in the mere bringing of farmers into relations with each other under conditions promoting comparison of ideas and experiences. It is not an uncommon thing for men who have lived in the same township for years to discover at a Farmers' Institute that each knows many things that would be helpful to the other. The Institute is a wonderful awakener of what may be called a professional interest on the part of farmers, and whoever attends one of them is likely forever afterwards to be a closer observer of the operations of others, as well as a closer student of the problems of his own affairs."

MUSHROOMS AND MUSHROOM GROWING.

Mr. Hollenbeck Says it is a Profitable and Rapidly Growing Industry.

Correspondence of the Progressive Farmer.

The Year Book of the Department of Agriculture, 1897, has a very fine paper on edible and poisonous fungi, i. e. mushrooms, toadstools and this class of vegetation.

The plate illustrations are unusually fine. The descriptive text is not technical and is readily understood by those who are not expert botanists. Dr. Farlow, professor of his branch of botany at Harvard University, is the author.

The professor starts out by denying there is a distinction to be drawn between mushrooms and toadstools. All mushrooms are toadstools, the popular idea that edible fungi are mushrooms being incorrect. The name mushroom having, by custom, become affixed to a very few of the known edible fungi.

All our knowledge of the fungi comes from experience. Persons have eaten different kinds of fungi. Some have been found good food. Some have sickened and too often killed the person who ate them.

Two of the most deadly toadstool species most closely resemble the most common mushroom and are pleasant of odor and taste.

Right here the learned professor left a grave defect in his paper. He could well have described the leading symptoms of poisoning by toadstools and the best home remedies to be used pending the arrival of a physician.

The first described is the common field mushroom with its round white umbrella top called the *pileus*, with its pink fringe beneath turning purple and dark with age. This fringe running from the stalk to the edge, somewhat like the leaves of a partly opened book, is called the gills. The stalk is rather short and stocky, not hollow, and bears a ring, or collar, midway which looks like a piece torn from this vegetable umbrella's cover; which, in fact, it is. When at maturity it has a fragrant odor and is both delicious and nourishing when properly cooked.

Next the professor describes the fly agaric, (pronounced a-gar-ik, with accent on the first syllable,) which is so called because it has been used to poison flies. This is a gaily painted toadstool, with its umbrella cover yellow, or red; its gills always white; stalk white with a wide membranous collar hanging down from its upper end and its bottom fringed with scales. The colored surface of the *pileus* has scales, or warts, scattered over it of a whitish color. It grows singly instead of in groups like the field mushroom. And yet this deadly sinner closely resembles two of the most delicious edible fungi, *Amanita rubescens* and the

royal agaric. Only an expert can tell them apart. Better let these painted tops alone.

Next is the deadly agaric, our common toadstool.

The *pileus* is usually white, but may be any shade of dull yellow to olive. Gills white. Stem white with a hang down collar at the top, a bulb at the bottom having a sack like membrane about it called the volva. It is believed to be deadly enough to cause death.

Then follows a description of the horse mushroom, which is eatable; the horse tail fungi, also edible; the parasol fungi, edible; the *chanterelle* and a fairy ring toadstool, edible though some fairy ring toadstools are poisonous; oyster, beefsteak, morel, truffle, puff ball, and some other edible fungi with some of the poisonous species. Many species of these fungi have never been tested and it appears that count less tons of very nutritious food is permitted to waste because we are ignorant of its merits and how to select the useful and avoid the poisons. On the whole, more seem available for food than the reverse.

The reports of the Department of Agriculture for 1880, 1892 and 1893 also have fine articles on fungi. The United States Department of Agriculture is trying to educate the people in this branch of knowledge. Now it does seem as though the experiment stations and State farms might well take up the work. By issuing farmers' bulletins, by chemical analysis, by experiments on the lower animals to test for poisons, by cultivation and distribution of edible species they may add greatly to our foods and luxuries. Directions for cooking, symptoms of poisoning and antidotes, should be given.

By the way, it is reported that the juice of mushrooms has been found a remedy to render human beings immune against the poison of snakes.

Meanwhile, there is no need for the farmers and gardeners who read The Progressive Farmer to go without this delicious vegetable. Spawn, the seed, of mushroom may be bought of leading seedsmen. A mushroom bed is easily made and tended. Many a person near cities could make a fine lot of pin money by growing mushrooms for the city customers. A reputation once well established would be good as gold. Yes, even as good as silver, 16 to 1.

Why not give it a trial, even, if it is new?
E. HOLLENBECK.

APPLYING EXPERIMENT STATION METHODS.

"The work of the experiment stations is interesting enough, but it is not practicable to apply their methods to extensive farming operations," said an Illinois farmer not long ago. This man is a progressive farmer, too, and likes to grow good crops, but like a good many others he misses the point that the experiment stations are aiming at. We have no doubt that this very man is benefited by the work that has been done by the experiment stations without realizing the fact.

The work carried at the stations is one of infinite detail and attention to minute particulars, many of which are seemingly unimportant. The man who would apply this work to his own fields should not undertake to follow it exactly as the stations have worked out the problems that arise as he plows, sows and cultivates. But out of the mass of detail that experiment station bulletins furnish the farmer who reads and properly considers them, may deduct certain broad principles that will guide him on the way to success. The experiment stations deal with tenths or twentieths of an acre and must be very exact, or a large element of error would creep into their calculations and render their work valueless. The farmer who has fields of anywhere from ten to eighty acres to deal with need not be so exact and particular in his work, but follow the work of the stations in a general way and benefit thereby.

The bulletins of the various stations are filled with particulars, which if carefully studied will give any man a liberal education in agricultural science in the course of a few years, and put him in possession of a mass of reliable information that will help him to wring success from the most unfavorable surroundings. By apply this information properly the value of any farm may be greatly increased because a farm must be valued according to its productiveness.—Farmers' Voice.

IN REGARD TO THE ROUND BALE

A round bales outfit, it is announced, is to be established soon in Smithfield. This fact has caused the editor of the Smithfield Herald to investigate and study the question of round bale vs. square bale, with the result that the last issue of the Herald contains the following editorial:

The controversy of the round bale vs. the square bale has now assumed such an aspect here in Johnston county that, in justice to our paper and its readers, we can no longer remain silent concerning the question. We trust that our readers have understood this silence.

When the controversy first began to rage, we refused to take a stand with either side because we wished to investigate and ascertain which system was of greater benefit to the cotton raiser. When we should become fully convinced which was right we determined then to announce our position and take a part in the fight. "Be sure you are right and then go ahead," was the favorite maxim of Dave Crocket, and the advice of the wise Tennessean was never taken in vain.

Upon looking into this question we at once stumbled upon one point and, in our opinion, the fact that a trust is behind the round bale should be enough to warn the farmer of the baleful effects which, it is reasonable to expect, the general introduction of the system in the South would produce. The American Cotton Company is the promoter of the new system.

If the outfit, required to manufacture the round bale, was placed on the market for sale, the farmers need have nothing to fear. But it is not for sale, only for rent. And the ginner who rents it must guarantee 1,000 bales per season before he secures the plant. How many gimmers in this county could secure the outfit under these conditions? How many miles would the farmer be forced to carry his raw cotton before reaching a gin? Smaller ginning concerns would be driven out of business and the farmer would be subjected to the greatest inconvenience.

Let the American Cotton Company sell its outfit at a reasonable price and the condition will be changed. It will not do to place the cotton raiser at the mercy of a syndicate or trust.

We have fought trusts early and late. We see in them the great danger to American liberty—we want no centralization of capital nor business. The trust is the octopus that grinds the poor man in the dust and always selects the poor man as its victim; it causes little children to suffer and, mothers, seeing their sufferings, mourn.

THE CULTURE OF GINSENG.

So many inquiries about the culture of this plant have come to me within the last six months that some defensive measure becomes necessary. Perhaps an outline of its cultivation printed in this journal might also save a number of its readers the trouble of placing their queries upon paper.

Ginseng grows best in leaf mould, and under the shade of trees. In open field or garden culture, even when the beds are given the necessary heavy mulch of leaves to hold moisture, and dense lattice or brush shading, the plants do not flourish so well. As we have a great deal of uncleared land with valuable timber standing upon it, this whim can be indulged with double profits.

The undergrowth in a plot to be planted in ginseng is first grubbed out, leaving saplings and large timber for shade. The earth is then dug lightly, and all loose stones and tree roots removed. If it does not seem rich or deep enough, we use for fertilizer light coats of unbleached wood ashes, well rotted manure, decayed vegetable matter of almost any kind or leaf mould scraped from under trees in adjoining thickets.

The beds are usually made about four feet wide and of any length convenient, leaving an alley about a foot wide between them. Young roots or seeds are planted about 3.7 inches apart. The seeds are covered an inch deep, the roots about three inches. This planting should be done in the fall, while roots and seeds are fresh, or else they must be kept so until spring in beds or boxes of loose, damp soil. After planting the beds are covered lightly with leaves, which are left to

[CONTINUED ON PAGE 8.]