

PROGRESSIVE FARMER

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

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Agriculture.

FROM BEAUFORT.

Correspondence of The Progressive Farmer.

Seeing so many good and useful articles in The Progressive Farmer like enough to stimulate us all to write an article. Mr. D. Lane, of Craven county, did write such an interesting and valuable article, and from which so much useful information could be gained.

We in this section of North Carolina have been very much troubled for the last few years with a very small black bug (not much larger than a large grain of wheat) a species of weevil that has been very destructive to corn in the barns, in a great many instances eating it almost to a honeycomb appearance by August or September. I have frequently seen corn shelled and put in tow sacks in the latter part of summer and in a short while you could hardly tell the color of the sack, so many of them had crawled through the sacks and were sticking to the in. Now a neighbor, a very successful farmer, has found a cheap, simple and, he says, effectual remedy for them. It is this: When putting the corn away in the barn put in a few sassafras bushes among it. Try this.

R. H. LANE.

Beaufort Co., N. C.

THE QUALITY OF HAY IN WINTER FEEDING.

Correspondence of The Progressive Farmer.

Most farmers ship their best hay to market when prices are good and retain the poorest grades for home feeding; and this policy produces the best results in the end. That is, it always pays best to ship only the best of any farm produce to market, for in the event of a glut or surplus of goods the inferior grades will always be pushed to the wall, and sell sometimes for less than actual transportation charges. It has been my fixed purpose for years, founded upon experience, to ship only fine quality produce to market. If my products, whether of grain crops, dairy or fruit, will not pass inspection as first-class I consider it better policy to sell them to some nearby market which I can reach with a team, thus saving railroad transportation, or to make use of them in other ways at home than to send them forth to some uncertain city market. In the end I am in pocket. We raise our farm products for money, and we should endeavor to provide the best that money will buy.

But in the matter of wintering stock on the left-over hay, or the inferior grades that were not considered worthy of shipment, there is always the danger of underfeeding the animals, and thus working harm indirectly. It goes without saying that there is less nourishment in a ton of inferior hay than in the same amount of first-class, properly-cured hay. Otherwise there would be no special demand for the latter at higher prices than the former. Therefore, if we give the usual quantity they will not get as much nourishment as if the hay was all first-class. An allowance must be made in the difference of the nourishing qualities, which must be made up in either large quantities of hay or more substantial food. Stock can eat only a certain amount of hay without causing bloating, and I have found it much more economical to increase the grain ration a little than to buy hay supply. With the poor hay I mix enough bran to bring the nourishment of the ration up to about the same standard as the same quantity of bright, full-length timothy hay. In this way the animals secure as much nourishment without adding any additional burden to their stomachs. Feed cattle through the winter when they have little exercise with coarse unnutritious food, and they will in most cases gain slowly, and very often develop stomach troubles before the winter is half over. This danger must be avoided in every way possible, and one of the chief causes is the quality of the food we give to the animals.

W. E. EDWARDS.

WHEAT.

Prof. Merriam Writes From Experience on a Timely Subject.

Correspondence of The Progressive Farmer.

At the present writing, October 3rd, many farmers in Georgia are sowing wheat. There need be no undue haste in this matter, and these farmers had much better be working over their seed bed one or two weeks.

We shall not sow until after the 15th of October. Any time from then to the first of December will do nicely. We prefer to wait until after the first good frost, for then there is less liability of injury from the fly, and this time can be very profitably used preparing the land.

We shall plant our wheat on a corn and pea vine stubble. The peas were sown in the corn at the last plowing, and have made a rank growth, as also have the crab grasses. This we have cut for hay, and as the stubble is too heavy to work up well with a cutaway harrow, we are re-plowing it shallowly across the rows, and shall work the land over about once a week until we are ready to plant. Part of this land we are fertilizing with 400 pounds to the acre of a chemical fertilizer consisting of phosphoric acid and potash, and part we shall leave unfertilized in order to note the difference.

Mr. W. P. Walker, of Griffin, Ga., this year grew fifty-eight bushels of wheat to the acre on three acres, and an average of fifty-three bushels to the acre on fourteen acres. His wheat was fertilized with 400 pounds of guano to the acre, made of half cotton seed meal and half acid phosphate. Such fertilizing must involve a great drain on the potash in the soil; and while his land evidently contains a large amount of this element, it is doubtful how long such a drain can be kept up without a serious falling off of the crop. I regard it better farming to expend the money he has spent for ammonia, in purchasing phosphoric acid and potash. While wheat undoubtedly contains a great deal of nitrogen, still this can be obtained very much cheaper through the growing of leguminous crops.

To give you some idea of what the growing of such crops will do to increase the yield of wheat, I will give you the experience of one of my neighbors. In 1899 he made eighteen bushels of wheat to the acre on five acres. A crop of cow peas was then grown on the land and followed by wheat again. This year he gathered thirty-eight bushels of wheat to the acre on this same land. After which he sowed it again to peas, and expects to follow with wheat again this fall. The only trouble with him is, he has used too little potash on his pea crop, and the growth of vines is not what it should have been. His land is of a sandy character and needs potash.

If we want large crops of wheat, we must grow large crops of cow peas, and cow peas need chemical fertilizers. I prefer to use the bulk of these fertilizers on my pea crop, to putting them directly on the wheat, although they will pay on the latter crop also.

At the meeting of our State Agricultural Society, at Dublin, Ga., in August, while in conversation with the brother of the Hon. Pope Brown, President of the Society, he informed me that it had paid them to use potash on wheat, and in fact, for most other crops. Their soil is of a sandy character like the majority of the land in the lower part of our State. On all such land potash always gives marked results. F. J. MERRIAM.

Battle Hill, Ga.

No theory, however correct, is of any value unless you know how to apply it. You may send your boy to the agricultural college and spoil him by a farmer by filling him up with theories which he has no disposition to reduce to practice. You may send him to the same college and make him a better farmer than you are or ever can be. Everything depends on what kind of a boy you send and whether he can convert correct theories and sound principles into actual practice.—Exchange.

GUESSING AT ONE'S INCOME.

A friend of mine whose business takes him regularly through some of the most prosperous agricultural counties in North America tried his hand at census enumerating in that same section, and was astounded at learning how few farmers had kept books of their business or had any idea of the value of the products of the farm, especially those consumed at home. The man whose wages come in a pay envelope knows well enough, of necessity, how much his milk, eggs and "garden sass" cost him, whereas the grower himself takes these things for granted. Men apparently prosperous could not tell how much milk they produced in a year, or eggs; in fact, they were compelled to make a wild guess at their annual income. There are manufacturers whose methods are as easy-going as this, but they can't survive such laxity so long as the agriculturist can. The lesson which the census will teach the forehanded man is the importance of scientific farm bookkeeping.—Farm and Home.

THE FARMER AND WEATHER BUREAU.

To present a scientific exposition of the laws of storms is beyond the scope of this paper, and would require a review of the voluminous literature which has been published upon the subject. It will be sufficient to say that storms are considered to be revolving whirlwinds which turn from right to left, and have a progressive movement towards the northeast. These gyrating portions of the atmosphere develop a low barometer near the center. On the eastern side warm southerly winds, with increasing cloudiness and rain prevail; on the west side cold northerly winds and clearing skies. Storms are but minor whirls in the general circulation of the atmosphere resulting from the differences of temperature between the equator and the poles. The weather bureau forecasts are thus made by the national method of observing the actual features of the weather and anticipating the changes which may occur within the brief interval of a few days. It is evident that forecasts for months or years in advance are not possible. The so-called forecasts in the almanacs, and such as are issued by false prophets like Foster, of Missouri, and Hicks, of St. Louis, are utterly valueless and unworthy of any attention.

There is not a community which does not receive some benefit from the forecasts or other information furnished by the weather bureau. While storm warnings are of the greatest benefit to commerce and navigation, and have been the means of saving thousands of lives and millions of dollars' worth of property, the value of the forecasts to agricultural interests cannot be minimized. Warnings of rain are of immense value to the raisin industry in California; the cold wave warnings benefit stockmen in the West, and are eagerly noted by growers of cotton, tobacco and other crops liable to be injured by freezing weather; the truck and strawberry growers of Eastern North Carolina appreciate highly the frost warnings in spring which enable them to protect their crops and dominate the early Northern markets. It is certain that further improvements in the forecasts will be made and that many other ways of utilizing the information furnished by the bureau will ultimately be discovered. The farmer should formulate his demands, should be aggressive in his search for information upon all subjects that may contribute to his success, and in so doing he will learn that he cannot dispense with the assistance proffered him by the weather bureau.

Gentlemen, permit me to thank you for your kind attention, and to extend you a cordial invitation to visit the Weather Bureau office, at Raleigh, at any time.—From Director C. F. Von Herrman's address to Commissioners of Agriculture.

Postpone to the great object of liberty every smaller motive and passion.—Thomas Jefferson.

NEW WHEATS; SUMAC.

Correspondence of The Progressive Farmer.

The North Carolina Department of Agriculture has secured for trial in this State twenty-two new varieties of winter wheat, mostly from the warm dry regions of Australia, South America and Southern Europe. To prevent mixing, these new wheats should be grown at least one-quarter mile from any other variety of wheat. Of the 22 varieties 14 have been reserved for planting on the test farms of the Department. The other eight will be distributed to farmers as follows:

No. 1.—Barletta. A hardy, bearded, soft, red wheat from Argentina, where it is very extensively grown.

No. 2.—Bordianski. A hard amber wheat from the Mediterranean region of France. Hardy and resists rust well.

No. 3.—Frances. A half-hardy, soft red wheat from Argentina, where it forms a large part of the exported crop. It makes good flour.

No. 4.—Allora. A half hardy early, soft, white drought and rust proof wheat from New South Wales.

No. 5.—Steinwedel. A hardy, early, soft, white wheat from New South Wales, where it is the most esteemed variety. Very promising for Central North Carolina.

No. 6.—Genesee Giant.—A hybrid American wheat, very hardy; seed hard, large, amber; makes good flour. Should be tried in the mountain section.

No. 7.—Conning Downs. A bearded, early, soft, white, large seeded wheat from Australia. Resists drought extra well. Not very hardy. Recommended only for low country.

No. 8.—Onigara. A bearded, hardy, vigorous, soft red wheat from Japan. Makes good flour.

The following method of preparing and sowing seed is recommended:

1. Use ground which has had a crop of cow peas, turned under this fall. Plow four to six inches deep, at least two weeks before the seed is sown. Harrow until very fine.

2. Apply broadcast the following fertilizer, after the land is harrowed. Per acre, acid phosphate 200 pounds, muriate of potash 50 pounds, cotton seed meal 100 pounds. In addition to this fertilizer, the plot may be top dressed in spring with nitrate of soda at the rate of 100 to 150 pounds per acre.

3. Before sowing seed, soak for twelve hours in a solution of copper sulphate 1 ounce to 1½ gallons of water. Remove and drain the seed for ten minutes then plunge into a clear saturated solution of lime water. Use a burlap sack to hold the grain. Do not neglect to treat the seed as above, or otherwise smut may destroy one-half or more of the crop.

4. Sow the seed just before the first hard frost is expected. Earlier sowings are liable to serious damage from Hessian fly. Later sowings may winter kill.

5. Wheats sent out by the Department are all new, but farmers are also strongly recommended to experiment with the following varieties which are among the best yielders for this climate, to-wit: Velvet Chaff, Fulcaster, Red Purple Straw, Fultz, White Early May. We especially recommend Purple Straw (Red) and White Early May.

All the above should receive same care and treatment advised for the new wheats.

Many farmers writing for wheat ask also for samples of new oats. The Department is not distributing oats this fall. The best varieties of oats for North Carolina are the following, their relative value being in the order given:

Appler, Texas Red, Virginia Turf, Black Winter. Burt is the only spring oat worth planting. All these can be obtained of seedsmen. Oats should be sown before wheat. They are not injured by the Hessian fly. Sow as soon as possible after October 1st.

Oats suffer from rust, for which there is no remedy but the early sowing of rust-proof varieties. Smut is also very destructive some years. To prevent this, soak the seed for two hours before planting in a solu-

tion of 1 pound formalin in 25 gallons of water; or soak 24 hours, frequently stirring, in a solution of 1½ pounds of liver of sulphur in 25 gallons of water. Never sow wheat or oats without treating seed for smut.

SUMAC.

The article on sumac published by the undersigned in The Progressive Farmer in June last brought forth a large number of letters asking for further information and the names of dealers in sumac. Owing to other work which kept the writer away from Raleigh for nearly the whole of July and August, few of these inquiries could be properly answered. The following information, however, covers most of the questions asked by the readers of The Progressive Farmer. If too late for this year, preserve for future reference:

1. Sumac cannot be ground in a grist mill nor by iron or steel cutting discs. It must be ground by a heavy stone roller in a sort of pit very much resembling the appliances for grinding clay for brick making. The pit may be lined by wood, brick, stone or cement. A heavy post is set in center. From this a long beam or pole stretches across and beyond the pit. One end of the beam is attached to top of post by a ring and spike or pin. To the other end the horse is hitched. The stone has a round hole in center. It is loose on the beam; as the horse walks around the pit the stone revolves on the beam, crushing the leaves under it. The stone can be slid between the center post and wall of the pit, so that all the contents are ground. In a smaller way dried sumac leaves can be beaten to a powder with a common ball.

2. Most dealers in dye stuffs handle sumac. Among some of the largest houses may be mentioned the following:

Innis & Co., 3 Cedar St., New York.
Lehn & Fink, New York.
Lawrie & Co., 13 Stone St., New York.

Howe, Fuller & Trunket, Boston, Mass.

O. S. Janey & Co., Philadelphia, Pa.

Edward J. Walker, Baltimore, Md. A recent article on sumac in a trade paper gives the following information: This year's supply of sumac is short. Excessive rains during harvest injured the Sicily sumac. Excessive drought has cut short the Virginia (Southern) supply. There is practically no sumac in first hands. The demand is brisk and steadily increasing. Prices are likely to go higher. Present quotations (Sept. 1) are as follows:

Sicily No. 1, per ton, \$58.
Sicily No. 2, per ton, \$53 to \$57.
Virginia, per ton, \$40 to \$45.

GERALD MCCARTHY.

N. C. Dep't Agriculture, Raleigh, N. C.

The premiums at the State Fair have been given heretofore to cattle, sheep and hogs open to the world. This year, in addition to those, they have been duplicated and offered for stock owned in North Carolina, no others competing in that class. This was in compliance with the request of stock breeders and farmers of our State, and was made possible by the enlightened action of the Agricultural Department of the State, in aiding the premium list. Let every farmer who has cattle, sheep or hogs that he deems meritorious bring them forward to this great exhibit, commemorating the Fortieth Fair of the Society.

Mr. J. Wallace Cook, who lives at Forest Hill, is one of our best farmers. He raised 220 bushels of wheat on six acres of land. This is 36½ bushels to the acre. This piece of land has been farmed in wheat for six or eight years and always yields well, but this is the banner year. Mr. Cook says that \$46.30 covers all expenses or cost from plowing the land to, and including threshing, but does not include the toll. He says that 50 bushels of wheat can be raised to the acre, and he will make an effort to so next year. Mr. Cook is not only a big wheat farmer, but he is the father of '19 children.—Concord Standard.

Horticulture.

SOME PAYING VEGETABLES.

Correspondence of The Progressive Farmer.

Okra is a summer vegetable, a wonderful pod yielder. Pods should be gathered every other day from the plant and thrown aside, if not wanted for use. By so doing the plant bears more. At first you may not be fond of okra, but under different kinds of preparation some may suit the relish. Pickled, boiled, or fried, or in some way prepared, we may come to a fondness. It is very easily grown on good rich land.

Celery can be grown in North Carolina to perfection. And yet we depend on the large shipments to our State. We may learn to grow celery in a short time. Fewer insects prey upon it than on most plants, and there is a sure market for it in our cities. It pays the grower a good profit and it is said to be of fine nutritive value for rheumatism. Try it as a nerve supporter.

The above vegetables require lands well prepared with the manure at this season of the year to make a good success next season. Fresh unrotted manure at planting time is injurious.

Many people complain of drought when it may have been their own fault for want of judicious preparation. We had a long dry time part of July and August. I had no cause of real complaint. When lands are dry you do not often see vegetables cultivated too often when the cultivation is wisely done.

The salsify or vegetable oyster plant may be grown for winter use and with good success. Many people do not know the plant, and so it may not be extensively grown. Many vegetables are for winter use and are not of so fine flavor out of their season, while others are for use the whole year round.

R. R. MOORE.

Guilford Co., N. C.

FALL WORK IN THE ORCHARD.

Correspondence of The Progressive Farmer.

After the harvesting of the fruits in the orchard too many growers consider their work finished for the season, and let the trees take care of themselves. While the trees may not need any further cultivation, they do require more actual care than in the summer. My fall work in the orchard is the most successful that I spend among my trees, and I consider the work more important in causing a good crop the next year than the summer cultivation. In the first place the worms and insects can be destroyed better now than ever before. Every fallen and decaying fruit harbors worms and insects that will raise a new brood for the next year. They will enter the ground or the bark of the tree this fall, winter there and early in spring hatch out thousands of their kind. Consequently my first effort is to capture and destroy as many of these as possible. I not only have all the decaying fruits picked up, but the leaves and litter under the trees are raked up and burnt. Fire is the only sure destroyer. The ashes may afterwards be spread out under the trees to fertilize the soil, but first every worm and insect must be roasted alive.

When the worms are all destroyed in the fruit then I hunt for them in the tree. A good many of them will be concealed just under the loose bark and they can easily be dislodged and killed. Others may have worked themselves into holes, and can only be reached by a wire. By scraping and hunting around in this way a small army of worms can be killed, and the trees will have just so many less to contend with the next season. In this work one prepares the trees for the winter also, for the borers always weakens the vitality of the trees in the fall, and make them more liable to injury by the cold.

After the orchard is thus cleaned of insects and worms, all broken and twisted branches should be carefully pruned off. Where a large limb is cut off, cover the wound with dirt and tie a rag round it. This will help it to heal up quicker and pre-

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