

PROGRESSIVE FARMER

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

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Agriculture.

NEWS OF THE FARMING WORLD.

Our Washington Correspondent Tells What Progress is Being Made in the Various Sections of the Country.

Correspondence of The Progressive Farmer.

The government now stands ready to examine, test exhaustively and report on the

ADAPTABILITY FOR ROAD MAKING PURPOSES

of any material that may be sent it by any farmer. More, it will test all samples of available materials that he may send, and report which will render the best service and will last the longest. As a macadam road costs from \$8,000 to \$10,000 per mile, and a difference in the choice of materials may make it last anywhere from two to thirty years, the enormous value to the tax payers of selecting the best material—which often costs as little as the poorest—is obvious.

The work of testing is carried on in the "road materials" laboratory, presided over by L. W. Page, a Harvard graduate, who last December gave up a seven years connection with the Massachusetts State Road Management to take charge of it. Mr. Page had to absolutely create the laboratory; nothing of the kind had ever been done before by the government and there were no machines, no processes, no methods nor tests—nothing, in fact, but the bare rooms. Since then, Mr. Page has designed machines to test the abrasion co-efficients, the cementing valuation and the toughness of the rocks sent him, and is now having constructed a machine to test their hardness, which is the factor of least importance for accurate determination in road building.

Limited appropriation and a limited force still restrict the work of the laboratory, which at present is able to complete about two tests per day, each requiring two to three days to carry out. It is therefore confining its attention to requests sent in from country road builders and letting the immense paving materials' interests go for the present. Later on, it will take up this work. Just now it is not anxious for advertisement, as a very little more work than now reaches it would swamp it altogether. Still, any person or community intending to build a road ought to send to it samples of all material that are available in sufficient quantities, with a request to be informed which is the best for the purpose. By so doing, they may save thousands of dollars in repairs.

The Census Office has sent out a bulletin giving

THE COTTON CROP OF 1900, compiled from statistics furnished by the ginners. This is the second bulletin on this subject issued by the Census Bureau; the materials for the first were gathered by the enumerators; those for the present one were gathered through the mails. Every one of the 29,000 ginning establishments in the United States has been heard from, either directly or indirectly. The Census Office now possesses a complete list of these, with the capacity of each as shown by the quantities of cotton handled; and it is able to keep this list in perfect condition by the elimination of abandoned establishments and the addition of new ginneries. The success of the inquiry is due mainly to the direct appeal made to the ginners by the Census Office, for individual co-operation in this work. They have been made to see their own interests will be promoted by annual official reports of the cotton crop, upon the accuracy of which they can depend. From hundreds of them the Census Office has received flattering letters in regard to its first report, and the great advantages which must accrue from a regular continuance of the collection of these statistics in this manner. The crop of 1900 is found to be 10,123,027 bales of the average weight of 500 pounds, or to 5,061,512,294 pounds, an increase of 840,174 commercial bales over the crop of 1899. The death of President McKinley and the space allotted thereto and to

the events resulting therefrom, caused the

INTERNATIONAL GOOD ROADS CONGRESS AT BUFFALO

to pass almost unnoticed, even the resolutions adopted thereat being crowded out of the papers by the press of other matter. Yet some of these were important and, considering the size and enthusiasm of the meeting, were worthy of a better fate. The following extracts from them were obtained from Martin Dodge, Chief of the Office of Road Inquiries of the Agricultural Department. They have never been published, even in the farming papers.

Briefly, the resolutions are—that the need for investigation and education by the government in regard to roads is more pressing now than ever; that the public roads office should be enlarged to a bureau and its appropriation increased to \$150,000 a year; that the work of the National Good Roads Association is heartily commended; that State associations should be organized in each State and Territory; that thanks are extended to the roads which organized and ran the good roads trains and the manufacturers that equipped them; that the policy of the post-office in requiring good roads as a pre-requisite to rural free delivery is commended; that the roads in the Yellowstone Park should be so improved as to furnish an object lesson to the country. Three other resolutions seem worth printing in full. They are:

"Resolved, That enterprise has demonstrated that the greatest progress for good roads has been made in the States where the system of State co-operation has prevailed under the direction and control of a State Highway Commission or Engineering Department. Therefore, we recommend this plan to the several States as far as the same may be applicable to their conditions.

"2. That this Congress endorses the use of convict labor where practicable, in the work on public roads or in the preparation of materials therefor, thereby taking the convicts out of competition with honest labor.

"3. That this Congress heartily approves of the use of the wide tire on all public roads and the substitution of the payment of the usual road taxes in cash instead of in labor."

There is
LOTS OF MONEY IN FARMING," said Prof. Myron Whitney, Chief of the Division of soils of the Agricultural Department, "if the farmers will only take pains to be up to date in their management. For instance, take the growers of Sumatra tobacco in the Connecticut valley. Like all the farmers up there, they have been living on the ragged edge of failure for years. Some of them had been making fair profits at growing tobacco in the open, but these were comparatively few. Last year the Department went up there and showed them how to raise Sumatra tobacco under cover at a profit of \$1,000 an acre. Now, some of them have invested about \$20,000 in following the Department's example under direction of a tobacco expert to whom the government pays \$4,000 a year. They will get all their investment back this summer and will make a clear profit of \$1,000 an acre besides. Those who hadn't the money to go into this—it cost about \$400 an acre to start—or who were not sufficiently up to date to do so, will make only a small profit. The moral is that farmers should find out what crops are best for their soil and should use modern methods in raising and rotating them. If they do this, their profit is reasonably certain.

"For another instance, take the lands in southern Maryland which have been to a large extent abandoned," continued Prof. Whitney. "These lands at the best sell, when under cultivation, at \$10 an acre, yet they are quite as good as similar lands in Lancaster Co., Pa., that readily bring \$125 an acre—the

DIFFERENCE LYING SOLELY IN THE MANAGEMENT.

The Pennsylvania farmer works his own land; he rotates his crops; he raises practically everything he eats

—result, prosperity. The southern Maryland farmer with lands equally rich, rents his farm, raises only tobacco, wheat and corn; sells his tobacco in competition with Ohio tobacco and without special attention; sells his wheat in competition with the great Western farms—and buys flour sent to him from a distance; and feeds his corn to his work stock—result, poverty, and in many cases abandonment. Yet there is no reason at all why he shouldn't be as prosperous as his Pennsylvania confrere."

A. B. MARRIOTT.
Washington, D. C.

VARIETIES OF WHEAT.

Correspondence of The Progressive Farmer.

It is not so easy a matter to determine just the best variety of wheat for any farmer to grow, although the market is flooded with plenty of different kinds and an abundance of literature concerning each. The fact is that each farmer must find out through experience just what variety will do the best. After all one must cling to old standard varieties until something better is found. It would be folly indeed for any farmer to purchase seed of a new variety and plant acres of it before he had demonstrated to his own satisfaction its advantages. Take the consensus of opinion of farmers in regard to the half dozen leading varieties of wheat, and it will be found that no definite decision is reached. Advocates of each variety must modify his opinions and conclusions so that no definite news is conveyed. Even the experiment stations cannot say conclusively that this or that variety will be the best on farms of such a section. Now the fact is that some of the best varieties of wheat used to-day are old standard ones, and they have not run out except on certain soils and regions. A fine variety of wheat need not run out provided proper culture and selection are given. There is consequently no need to purchase new and untried varieties, although it is always well to set aside an acre of ground for experimental work. On this land plant as many new varieties as necessary, keeping strict account of the amount of seed used, and the amount of the yield. By a little comparison in this way it is easy to ascertain whether a new variety is superior to the old. Even when this has been shown by one year's culture it is well to proceed slowly and merely plant a few acres with the seeds the following year. Then if the test is successful its culture can be extended. In this way one keeps abreast of the times, and at the same time runs no risk. The farmer who buys new varieties of seed wheat on the recommendation of others is in a fair way to meet with a great setback. He may be successful, but the chances are even that he will fail. Because somebody in an adjoining State happens to raise an immense crop with a certain variety it does not follow that the same can be accomplished elsewhere. There are soil, the climate, and many other conditions to consider. Experience in farming makes men proceed more and more carefully each year in adopting new methods and varieties of plants. There is too much information flying around loosely. It is wise to test any new recipe before using it whole sale. Then we know of what we are speaking and doing, and the science becomes an exact one.

C. T. HILL.

Very few people know how to keep honey. The average housewife will generally put it in the cellar or into the refrigerator for safe keeping—about the two worst places possible. Honey is kept very different from fruit. It is thoroughly ripe when taken from the hive and will, therefore not ferment unless placed in a cool, moist place. We learn from the bees that it should be kept dry and warm, as they keep it. In the kitchen cupboard is a good place for it, or any room where salt will keep perfectly dry. Even a temperature of 100 degrees is not too hot for honey.—F. G. Herman, New Jersey.

PREPARING LAND FOR WHEAT GROWING.

A McDowell County Farmer Tells What Methods He Has Found Most Profitable. Correspondence of The Progressive Farmer.

Wheat sowing time has now come again, and the farmers are getting ready to sow their wheat. Some are buying their fertilizers, drills, and harrows with which to put in their wheat, while some are going to sow it the old way—just simply sow it down with the hands and plow it in with a shovel plow.

Now, every energetic man who sows wheat this fall wants to realize just as large profit as he possibly can. In this article we shall attempt to give some profitable ideas from what knowledge we have gained by experience and by observation while traveling through the State from Tennessee to the coast, and from South Carolina to Virginia in several places.

We find that a majority of the farmers of North Carolina sow too much wheat and do not prepare the soil well enough before they sow. If we will sow fewer acres, prepare the soil better, use more fertilizer to the acre, put the wheat in the ground with more care, use nothing but first-class seed, and sow it on time, we will make a better profit on our wheat and do less work in sowing and harvesting.

Now, we wish first to notice how we should

PREPARE OUR GROUND BEFORE SOWING wheat. If we wish to sow wheat for a profit, we should never sow it after corn, cotton, or cane, because if the soil we sow in wheat is to yield a profitable crop it must receive a good supply of ammonia which is caught from the air by certain plants and conveyed to the roots and deposited in the ground that the next crop may get the benefit.

Neither corn, cotton, nor cane store any ammonia in the ground, but draw away what there may be in it. There is but one time in the year when the ammonia is caught and deposited in the ground and that is during the summer or growing season. And wheat is sown just as this season closes and is out off just as it begins, therefore you plainly see that if we sow down our wheat after a crop that has drawn away all the ammonia, no matter how we may fertilize, we need not expect a profitable yield of wheat. And wheat to bring a profitable yield should not be sown after wheat, unless we have a good coat of peas on the ground after the wheat was taken off, and yet not every time will this bring a profitable yield.

Now that we may get a profitable yield off our wheat sown: The first thing, our ground needs to have rested one year and not have anything done to it at all. Then the second year go in the winter and take a turning plow and let it down as deep as it will go if the land is light, mixed sand and clay, but if it is all clay let your turning plow down as far as it will go and let a subsoiler go right behind it. Then leave the ground alone until about the 10th of June, and go and cross plow your land with a shovel plow. Then sow down with about 1½ or 2 bushels of peas to the acre and harrow them in, and leave them alone until you wish to cut them for hay. Then go again with your turning plow and turn again just as deep as you can. Then take a shovel or disc harrow and harrow it thoroughly just before you get ready to sow your wheat. And when you have done this you have your ground ready to bring a profitable yield of wheat.

Some few years ago we took a lot of land that lay on a south hill side. It contained five acres of land and had lain out and was pastured for about four years before. We prepared it the way above described and it yielded that crop 75 bushels on the five acres, or about 15 bushels per acre. This was a very profitable yield for the land. The fall following this we turned under just the natural growth of weeds and sowed it down again just as we did before. And as I failed to tell how we put the wheat in before, I will tell now. We drilled it in with our old-fashioned

hoed drill and put 200 pounds of 13 per cent. acid phosphate to the acre. The second year we did the same and the five acres brought about 40 bushels to the five acres, or eight bushels to the acre, just a little over half the yield of the year before. Just as soon as this crop was off we sowed the land down in peas and turned them under at sowing time and drilled the wheat in with a Buckeye disc drill, putting the same kind and same amount of fertilizer to the acre, and it brought between 45 and 50 bushels to the five acres, about 9½ to the acre; but a slight increase over the year before. That fall we turned under the weeds again and sowed the wheat down in like manner as before, and it brought about 20 bushels to the five acres, not one-third it brought the year we sowed it after it had rested.

From the above you see the first thing essential to bring a profitable crop of wheat is to have rested land. One year is enough rest then grow a crop of something that will deposit in the ground a good amount of ammonia.

From the experience I have had, there is nothing so good for this as a good coat of cow peas. There is no pea that is as good for this purpose as the cow pea, for there is none that has so large vine and root as the cow pea. Some say the vine is no good to the ground. I don't think there is much good in turning under the vine, but the greater top the vine has the more ammonia it will catch from the air, and the more root the vine has the more ammonia it can receive from the vine and deposit in the ground.

Farmers, if you expect to make a profitable crop of wheat, don't sow it on a piece of land you have run in wheat and corn one after the other for years, for there has no ammonia entered the ground until it has become tough or cloddy, and there is not life enough in the ground to bring a profitable crop of a grain that requires as much ammonia or alkali as wheat does.

You find men all over the country who have land that ought to bring from eighteen to twenty bushels per acre, and they take lots of pains to sow it and fertilize it well, and make about eight to ten bushels to the acre, and they will say there is no pay in fertilizing; and they have not perhaps let their lands rest in twenty years.

I know a man who bought a run-down farm and moved on it a few years ago and there was some very good wheat land on it that had rested for about three years, and he turned it well in the winter and sowed peas on it and then turned again in the fall and sowed two acres down with his hand and harrowed it in. On the two acres he made eighteen bushels of wheat and the next year he had taken in one more acre and he used 200 pounds of 13 per cent. phosphate to the acre and drilled it well, and on the three acres he made 30 bushels—but a little increase over what he made by sowing with his hands. The trouble was his land needed to rest again and get in shape to receive the ammonia from the peas and weeds.

If you will try resting your land one year and sowing in peas one year and then plow as I suggested, I think you will be pleased with the results.

If I write again, I will speak on how to sow wheat.

ZEB. B. PYATT.

McDowell Co., N. C.

SORGHUM SEED.

When the sorghum is ripe and still standing in the field, I go out among it and when I find a nice, strong stalk I cut the head off it, leaving about a foot of the stalk with the head. When I have cut all I want I tie the heads in bunches of about a dozen each, and hang them up to dry. When well dried I put them in a secure place where I leave them till planting time the following spring. I then take the heads in my hand one at a time and strike them on the inside of a barrel until the seed is all shelled off. In this way I have seed that is sure to grow.—W. O. Denny, Piassa, Ill.

Live Stock.

SHEEP IN THE SOUTH.

XVIII.

One Hundred and Twenty-Five Tons of Dry Fertilizer Worth \$1500—Machine Pulverization to Make it More Soluble—One Ton to the Acre on 80 Acres of Cotton—Fodder Corn and Peas on the Other 80 Fertilized Also—The Eighty-Acre Pieces Alternately Used for Cotton—Late Peas or Beans Plowed Under Every Year.

Correspondence of The Progressive Farmer.

If the 300 sheep have been judiciously housed and all the available manure gathered and composted as above noted, as a result of a year's work there should not be less than 125 tons of dry fertilizer ready for use and so well mixed and chopped up that it may be applied with the seed of cotton, corn or small grain by some of the fertilizer machines now in use.

I never tried it, but believe that after the last mixing of the manure, if the whole mass should be run through an old fashioned ("bunt") threshing machine, or a similar machine process, it would promote its solubility as plant food and facilitate its application to the land, to an extent that would surely pay for the extra labor and expense.

The above 125 tons when ready for use will not at most have cost over \$300, for material and labor and will be worth \$1,000 the year it is applied, and if the system is continued its effects will be worth half as much more in following years. An amount of equal value purchased from reliable merchants would cost \$12 a ton or \$1,500 delivered on the plantation. These valuations are given from the standpoint of prices asked and paid at this time for high grade fertilizers.

It is intended that this fertilizer shall be in such shape that it may be applied in the rows when planting the 80 acres in cotton, one ton to the acre. If possible, it should be applied one-third in the row with the seed and two thirds on each side and about six inches distant from the rows, completely covering it all over with dirt. The other 40 or 50 tons being applied to corn, potatoes, garden and such other things as require it. The 80-acres not in cotton, that is, the other half of the old 160 acre cotton field, can likely best be used by raising plenty of corn as an all round feed for the sheep, also fertilized.

If corn is raised the fodder should be shredded and fed. A better feed and more profitable crop is to drill it in thick, averaging a stalk every four inches and cut it in the milky or good roasting ear or glazed state for fodder corn and immediately sow or drill in cow peas. Having out the fodder corn with a corn harvester, shock and dry it sufficiently for the shredder, when it can be shredded and housed in loft of sheep barn. This fed with some peas and a good application of cotton seed meal thrown on it in the troughs, as elsewhere recommended for sheep barn, is a most rarely good sheep feed.

This mixture carefully cured and made more or less strong with peas, cotton seed meal, and then steamed fresh every day, cannot be excelled for sheep, even for the most carefully stall-fed weathers.

When ewes and weathers of the "third cross," such as I describe in Chapter XVI., are well fed on such food, the ewes may average 100 per cent. increase of lambs, and old weathers may be brought to average 200 pounds gross and be sold in the best markets each spring at 6 cents per pound, \$12 per head gross in full fleece; or if sold young as "spring lambs" they can be made to bring \$10 to \$12. The latter is generally the most profitable way to dispose of them if expressage is not too much. Of course such prices require skilful handling and management.

It is the manure from such sheep fed in the way that is so extremely valuable.

The cow peas on the 80 acres above referred to may be partially ripened so as to get part of the peas for the sheep if needed and then, if possible before dead ripe, plow under.

[CONTINUED ON PAGE 8.]