

PROGRESSIVE FARMER

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

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

ONLY NINE MILLION BALES.

In last week's Progressive Farmer we gave the figures of the Department of Agriculture on the cotton crop as 9,500,000 bales. Even this estimate has been reduced. Later press dispatches say that the productive area last year is found to have been 25,000,000 acres and that for the present year to be about 23,500,000 acres, with a probability that the final returns will show the present acreage to have been below rather than above the amount stated. The investigation discloses one of the smallest average yields per acre in many years and in estimating the total crop at a maximum of 9,500,000 bales a substantial and most ample allowance has been made for any tendency to take a too pessimistic view of the situation, the actual indications at the present moment pointing to a crop of less than 9,000,000 bales. The report of Statistician Hyde says:

"In his capacity as cotton expert to the United States Commission, the statistician has had the preparation of the United States cotton exhibit for the Paris Exposition and his duties in that connection have afforded him additional facilities for ascertaining the actual condition of the crop in every part of the country. The unimpeachable evidence that has come to him in that capacity is in every way confirmatory of the most unfavorable official reports."

FINE YANCEY APPLES

At the State Museum, Tuesday and Wednesday of last week, were shown a collection of Yancey county apples. The fruit was secured by Mr. T. K. Bruner, who has just returned from the mountain region, where he was collecting fruit for the Paris Exposition, and it occurred to him to exhibit some of the varieties which will go to make up the Paris exhibit.

The apples were from 11 to 14 1/2 inches in circumference, beautiful in color and are said to be delicious to the taste. The exhibits and varieties shown by each are as follows:

- Wilson Housley, Bald Creek—Shannon Pippins, Mountain Sprout, Buff, Virginia Beauty, Spitzbergen, Nickerjack, Hoover, Ben Davis, Fallwater, Russett.
- C. R. McPeeters, Bald Creek—Gold Pippin.
- J. S. Ray, Burnsville—Unknown, beautiful; P. and Apple.
- D. A. Letterman, Green Mountain—Roe Lambertwig, R. d Lambertwig, Littleville, Red Democrat.
- Jacob Bailey, Green Mountain—Stone Mountain Apple, Spitzbergen, Red Republican, Winesap.
- J. D. Ray, Burnsville—York Imperial, Stone, Water Queen, Winesap, Virginia Beauty, Abermale Pippin, Neverfail, Buff.
- W. H. Gardner, Cone River—"That Little Black Apple," "The Preacher," "Little Mundi, Virginia Beauty, Buff.
- W. B. Wray, Cone River—Virginia Beauty.
- W. M. Flack, Cone River—Fallwater, Gloria Mundi, Buckingham, York Imperial.
- C. R. McInturf, Paint Gap—Spitzbergen, Buff.

FARM AFFAIRS.

NITROGEN, PHOSPHORIC ACID AND POTASH IN FERTILIZER CONSTITUENTS—A SIMPLE EXPLANATION FOR FARMERS.

A Central, N. Y., farmer writes that he does not understand at all what I mean by saying that nitrogen in fertilizers should be figured at about 14 cents a pound, and phosphoric acid and potash at 4 cents. His reasons are that he can buy nitrate of soda 98 per cent. pure in New York at 2 cents per pound, muriate of potash, 80 to 85 per cent. pure at 2 cents per pound, dissolved bone black 16 to 17 per cent. at \$19 a ton, and dissolved rock, 15 to 17 per cent., at \$14. These are prices in New York city. He also asks whether he can do better than pay these prices, and whether he would better buy bone black or rock to get the phosphoric acid.

Probably nine farmers out of ten do not fully understand these points, and they lose money because they do not. I am going to try and make some of them plain to you. Nitrate of soda is a combination of nitric acid and soda. Nitric acid is a combination of nitrogen and oxygen. One hundred pounds of chemically pure nitrate of soda contains about 16 1/2 pounds of nitrogen, 56 1/2 pounds of oxygen and 27 pounds of sodium. One hundred pounds of your 98 per cent. pure nitrate of soda you see would contain about 16 pounds of nitrogen. This nitrogen at 14 cents a pound would come to \$2.24. You get the 100 pounds of nitrate of soda for \$2, and it gives you \$2.24 worth of nitrogen, according to my previous figures. It is safe to figure on about 16 pounds of nitrogen in 100 pounds of nitrate of soda, although it would fall a little short in a 96 per cent. pure article, which is the usual basis on which it is sold. The price named for nitrate of soda by the bag (2 cents a pound) is fair. It could be bought for much less, of course, by the car load.

Now, let us take your muriate of potash that is 80 to 85 per cent. pure. You can cross out the 85 first. The lowest figure, 80, is all that counts, all that is guaranteed. It is usually sold on this basis of 80 per cent. pure, that is 80 per cent. muriate of potash. The rest is mostly common salt. One hundred pounds of this muriate of potash contains about 50 pounds of actual potash. This at 4 cents a pound would be worth \$2.00. The 100 pounds of muriate that furnishes it costs you \$2 in New York city. In round numbers you can figure on 50 pounds of potash in each 100 pounds of 80 per cent. muriate.

Next we will consider the dissolved rock, that is rock treated with sulphuric acid, which is called acid phosphate. The usual grade found on the market is guaranteed, as I remember, to contain 14 per cent. available phosphoric acid. That means that in each 100 pounds there are 14 pounds that are available for your crops. The rock mentioned above is 15 per cent. available. Calling this all soluble and figuring the 15 pounds at 4 cents a pound, 100 pounds would be worth 67 cents, and one ton \$13.40. You pay \$14. While you are buying nitrate of soda and muriate of potash at a fair price in a small way, you are paying rather high for acid. This is no fault of New York dealers, but because you are not buying in the right market. And I believe the price of acid phosphate has declined some since I figured the value at 4 cents, which makes the price you paid still more above what it should be.

The Baltimore market supplies the North with phosphoric acid from rock to a large extent. Probably your New York dealer received his supply from there, and must add freight and commissions. Dealers in Baltimore, I am told on the best of authority, have been selling 14 per cent. acid phosphate for \$10 per ton in a small way, and as low as \$7.50 by the car load in bulk. I do not know the names of these dealers, but these are the prices some farmers are getting acid phosphate. This buying the constituents of fertilizers at first hands has come to stay, and thousands of readers want to know where to get them.

If the dissolved bone black contains 16 per cent. of available phosphoric acid it furnishes you just one pound more in each hundred than the acid phosphate does, a difference of about 90 cents a ton in favor of the bone black. Soluble phosphoric acid in one is just as good as in the other. So if you bought

bone black at \$19 a ton you would lose enough on one ton, over the cost of the same amount of phosphoric acid in acid phosphate, to pay for the Practical Farmer for several years. Don't touch bone black at any such figures. When you can get acid phosphate in a small way for \$10 a ton, bone black is worth about \$10.80. Of course, it might be worth a little more if you could get it from some nearer point than you could acid phosphate, and thus save freight.

Buy all fertilizer constituents for the nitrogen, potash and available phosphoric acid they contain. Some dealers estimate the nitrogen under the name of ammonia, simply because in this form their goods will show more pounds in 100. Ammonia is a compound of nitrogen and hydrogen. One hundred pounds of ammonia contain 82 35 pounds of nitrogen and 17 65 pounds of hydrogen. Remember when you see 2 per cent. of ammonia on a bag that it means 20 pounds of ammonia in one ton of the goods and that about 16 1/2 pounds of this is nitrogen. In other words, when nitrogen is worth 14 cents a pound ammonia is worth a little less than 12 cents. But you get nitrogen just the same under either name. Always figure on the actual potash, not muriate or sulphate. Of the muriate I have written. There are several grades of sulphate of potash. The high grade contains about 90 per cent. of pure sulphate of potash and 48 to 50 pounds of actual potash. Lower grades contain less potash. No matter how many pounds you get for the money, it is the actual potash contained that you should pay for, and only that. I have a sack analysis before me where the phosphoric acid is figured under 5 heads—soluble phosphoric acid, available phosphoric acid, reverted phosphoric acid, insoluble phosphoric acid and total phosphoric acid. Pay no attention to any of these but the soluble and reverted. The two are added together to make the "available." And that is correct enough, but as you have been told before a high authority, Dr. Van Slyke, of N. Y., says figure the soluble at full price and the reverted at half price. Pay no attention whatever to "insoluble" and "total." Of course you understand that nitrogen, phosphoric acid and potash can be derived from other sources than those named. You cannot get phosphoric acid and potash usually in any better form or more cheaply, but you can buy nitrogen to better advantage for many crops in other form than nitrate of soda. I have not been advising the purchase of this, except where you know what you want, but rather answering a New York farmer's questions—T. B. Terry, in Practical Farmer

THE IDAHO PEAS.
Correspondence of the Progressive Farmer.
The Idaho pea is one of the most valuable native forage plants of the Rocky Mountains. It grows similar to alfalfa, stooling out from the roots, and sending up a dozen or more branches, to the height of two or three feet. The stems are filled with pods, coming on at every leaf, each bush having from one to three peas. One vine or bush will bear from one hundred to nearly one thousand pods. The peas are relished as food for poultry, swine, horses and cattle. I have harvested at the rate of fifty bushels per acre, which with the hay for feed, makes this the greatest cultivated crop in the land, for feeding purposes. It is also grown as a coffee substitute, and the seed sold at fancy prices under various names, to be used for cereal coffee. The plant is of the leguminous order, called gram, coffee berry, wild peanut, chick pea and other familiar names. It is supposed to have originated in Asia Minor, where in former days the peas constituted much of the food product of the common people. They parched the grain and made a stimulating beverage; ground it into meal and made bread; cooked the pods the same as peas; or other green vegetables, and made delicious soup from the crushed gram. Official estimates place the annual crop of this particular gram in India at 5,000,000. The people use it for feeding dairy cows, claiming it produces more milk than any similarly cultivated plant. The average analyses given by different authorities, give about 20 per cent. protein, 60 per cent. carbohydrates and 4 per cent. fat. This plant, like all legumes, thrives best where the soil contains an abundance of potash and phosphoric acid. Any good soil will produce satisfactory

results, but profitable returns in the pea family, come from a liberal dressing of a fertilizer, containing about 8 per cent. available phosphoric acid, and 8 per cent. potash. If the land is planted to this crop for two or three years and the green vines fall or summer plowed under, the benefits to the soil will more than double the expense. One half bushel, or about 35 pounds, will plant an acre, in hills 15 inches apart, in rows 30 inches either way. This is the best way to plant for the seed, and for green manuring, broadcast sowing or drilling may be adapted.

The seed is much larger than the ordinary pea, has a softer shell and will not stand so much cold, or exposure to the sun. May is a good time for planting in ordinary years, and about four inches the best depth to cover the seed. Cultivation is the same as any pea or bean crop. The vines may be cut with a mowing scythe or machine and after thorough drying be threshed or flailed as the beans are treated. The vines have a peculiar odor which seems to drive away all insects, and there is a gummy substance collects at night, giving the plant a most beautiful appearance in the morning, as the dew apparently trickle down the branches. While it is a native of semi-arid districts, and growing where there is but little moisture, many experiments have proven its adaptability to all sections of the United States.

Seed may be obtained from dealers, at prices ranging from 15 cents to \$3 per pound, some introducing it as a novelty. It always pays to buy the best and true to name seed, regardless of cost. Although I have been very successful in growing this wonderful pea, I have no seed for sale, hence am not advertising for purchasers. I like the coffee made from this, it having a rich nutty flavor, pretty color, and delectable as a substitute. The domestic fowls and animals devour the peas with great relish, and take on fat very rapidly. The winter seed catalogue will soon be ready for distribution, and I would advise all looking for a cheap and profitable forage plant, a real novelty of value and a coffee substitute for home use, to read up the descriptions and prices and order some of this seed for next year's planting.

JOEL SHOMAKER.

IS IT RIGHT TO WORK CONVICTS ON FARMS?

A Farmer Protests Against the Injustice of the System—"Put Them on the Roads," His Sensible Suggestion. Correspondence of the Progressive Farmer.

If the Progressive Farmer will allow space, we have a question that should be discussed among the farmers—a question that directly concerns the farmer and farm laborer. That question is, Should convicts be worked on farms and the products of their labor be put on the markets in competition with the labor of every one that makes a pound of cotton or tobacco? Is this right?

The convicts are raising cotton by the thousand bales and also great quantities of tobacco, and our farmers have been raising 5 cent cotton and 3 cent tobacco and not complaining of anything but the trusts, which, of course, are bad. But is not the principle of forcing farm labor to the level with convict labor on the markets of our State wrong?

Now I ask anyone who thinks such a policy right to give his excuse for so thinking. Our good Democratic party that is always wanting to do something for the dear farmers has never a word against this policy, but is negotiating for more farms to increase the products of convict labor. Democrats, you had better watch; you know how hard you cried for our votes last fall. Next, our good People's party, the farmers' party, whose influence was dominant for four years, never raised its voice against such injustice. And last the Republican party, the great pauper labor bowler, tariff for protection and the great labor-loving party (during a campaign), has never a word against competition with convicts.

Now convict labor is the lowest of all labor, and should not compete with any free labor. Suppose our State should put her convicts to manufacturing cotton, what would be the consequence? Our manufacturers would send up such a howl that the party that did it could not expect to live through another campaign. Then is it right to hire them to railroads? No, here they would still be in competition with the day laborer whose rights

should be as sacredly guarded as any one else by the laws of the State.

Then the question arises, Where should the convicts be worked that their labor will not compete with the labor of honest men? That place is on the public roads; there he can have fair play and will not compete with any labor. If the counties do not want these convicts, then let the State work them on the public highways nearest our State Capitol, and there make some fine permanent roads and use the females as cooks, manufacturers and makers of their clothing, washing, etc.

This is the way to rightly solve this question and our farmers will not be brought down to a level with convicts on the markets of our State.

Now before another campaign is upon us, while everything is quiet, let us study the needs of our State and be ready to bring issues before our conventions and make a campaign on issues, and not have to resort to so much negro.

Now if the members of the Alliance think as I do, let us take action and pass resolutions and publish them in the Progressive Farmer that others may see what we are doing. Remember the cotton tie trust and our demands for a railroad commission and other demands of the Alliance that are now laws. JUSTICE.

Alamance Co., N. C.

THE FARMER'S SON.

We recently learned that one of our farmer friends is offering to sell his farm—an excellent piece of ground, well watered, well improved, and at atractive and desirable in many respects. The farmer's reason for wanting to leave the farm is that he is too old to endure the hard work and exacting hours which the successful management of his little farm demands. This farmer has a son, a bright, active young man, who has been his chief helper for several years, and for a year or more has been in charge of the details of the farm work. The young man wants to leave the farm. "He has not had a week's rest in four years," said his mother. "The farm cannot be left for a day."

In a town not far away you may read a sign like this: "John J. Smith & Son, Merchants." You will travel a mile before you read over the gate of a prosperous farm like this: "John J. Smith & Son, Farmers." Perhaps the merchant believes in his business and in his son; possibly the farmer does not. Either member of the firm of merchants can manage the business when the other is away on business or is absent on his annual vacation. When the farmer takes his son into partnership with him, it is possible that either of them can manage the business when the other is absent. The time may come when the elder member of the firm will want to retire from the active work of farm management; he can do so with honor and dignity if he has a trained successor to continue the work.

We know of a large ranch that has been abandoned. The buildings are almost worthless, the fences out of repair, the once fruitful fields grown up to weeds. What was once a profitable farm and a pleasant home is now neither, and is probably a burden to its owners. Yet sons of the man who made this farm profitable are living almost within sight of it. But they have no enthusiasm for the farm.

It is possible that fewer farms would pass into the hands of strangers if farmers would keep in mind their own inevitable passing away, and in anticipation of that event would take their sons into partnership with them, training them to bear responsibilities by giving them chances to use their own judgment. You make a boy manly and teach him to be trustworthy by calling him a man and by trusting him.

We all like to own something, to feel that we are proprietors—the boy no less than the man. We all like to be recognized as knowing something and as having good judgment—the boy as well as the man. Give the boy a chance. Trust him. Take him into partnership, his share to be a real share in the gross or net proceeds of the business. It will pay. He will be satisfied with less than you will have to pay the stranger you hire to do the work; and the boy will do the work better. But the boy must be a real partner; he must share in the planning as well as in the doing; and there must be prospect for him—prospect of increasing

responsibility with growing experience and enlarging reward for increasing effectiveness.

It will be easier to keep the boy on the farm when he is made a partner in its management; and it will be better for farm, farmer and country.—D. W. Working, in Farmers' Voice.

SAVE THE PUMPKIN SEED.

In the rush of work in connection with corn gathering, farmers are very apt to overlook one of the little matters on which somewhat of the success of the future depends, and that is saving pumpkin seed, says Wallace's Farmer.

Save seeds from some of the best pumpkins and usually those that have a small blossom end will be found better than those with a large. The farmer, however, can be trusted to tell the kind of pumpkin he has found to give him the best service. Why do we suggest this? Because if the farmer neglects to save seed and when corn planting time comes does not have the seed on hand, he is not likely to hunt for it among his neighbors and, therefore, is not likely to plant it, and if he does not plant he will not have a supply next year. We especially suggest this to sheep growers. The value of the pumpkin as a sheep feed is not understood. There is nothing better for lambs, for the double reason that the seeds are nutritious themselves, a large per cent. of the nutriment of the pumpkin being in the seeds and inwards, and that they are a vermifuge and thus meet one of the wants of the lamb. One of the best remedies for tapeworms in lambs is the extract of the pumpkin seed boiled down. Lambs that are fed liberally on pumpkins are not nearly so likely to be affected with intestinal worms as those that are without them, and when a crop can be grown so cheaply and so easily as pumpkins can, there is no reason why it should not be grown. If you do not want them in corn, then it is easy to plow up an old feed lot, cultivate it well, plant it in pumpkins about twelve feet each way and let the vines cover the entire area. It will even pay to take time to cut the ends of the vines off at the proper season in order that none but pumpkins that will ripen will be produced. If the pumpkins were a new plant and one or two seedsmen had it, a whole page of the Farmer would not be sufficient on which to spread out their advertisements and tell of the value of this new crop, and they would not be telling any lies, either. The pumpkin is none the less worthy of the farmer's attention because it is common.

LIVE STOCK



[CONTINUED FROM LAST WEEK]

PROFITABLE PORK RAISING.

No. 3.

LAYING THE FOUNDATION.

Correspondence of the Progressive Farmer.

The care and attention the feeding of the pig receives immediately after weaning is of great importance in determining the amount of profit or loss likely to await the pork grower slaughtering time.

If the pig is forced to roam over 5 fields or through ordinary woods lands to obtain a scant living or mere existence rations for a month or two after he has been weaned, the profit from growing him during the rest of his life is of an imaginary nature. He should never lose that plump body he had when six or eight weeks of age. He should grow in length and depth of body and limb, but he should never be allowed to change his form by getting thin in flesh. Flesh (either fat or muscle) once lost is regained at a much increased food cost.

The pig does not remain stationary for any great time during his life; he is either making new meat for his owner or he is consuming that which he has already made. The loss of flesh is not the only evil resulting from under-feeding. The development of the digestive organs is checked to such a degree as to render them unable to handle a large amount of good food to the very best advantage when the hog

[CONTINUED ON PAGE 8.]