

PROGRESSIVE FARMER

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

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Agriculture

FERTILIZER FORMULAS FOR DIFFERENT CROPS.

A Very Timely and Carefully Prepared Article From the Director of the Georgia Station.

Correspondence of The Progressive Farmer.

A this season of the year farmers are laying in their supplies of commercial fertilizers and fertilizing ingredients, and no question is more frequently asked than how to proportion the different ingredients so as to make a well balanced fertilizer for some particular crop. With many farmers "guano is guano," and these apply the same brand indifferently to corn, cotton, peas, potatoes, etc., without considering the special wants or preferences of particular crops, or particular soils.

But there are many more up-to-date farmers who understand that a fertilizer for corn will not exactly suit for cotton, and that a formula for grass is not just what is needed for clover. A failure to recognize the peculiar demands of particular crops and soils may often result in disappointment and loss. A fertilizer especially well adapted for cotton may also do very well on corn, and vice versa. But it may be true, and often is true, that a material change in the composition would yield still more satisfactory and more profitable results.

For convenience of all I give, without unnecessary comment, formulas for the leading field crops and garden vegetables, in the hope that those who are interested will preserve this article for future reference. It should be understood that these formulas are suggested as the result of years of careful experiments on the upland soils of middle Georgia and are therefore to be considered as especially applicable only to such soils in this and adjoining States. In the piney woods region it will be found expedient as a rule to increase the proportions of potash and nitrates from 25 to 50 per cent., phosphoric acid remaining the same. On fresh lands, on old lands more or less highly improved and on bottom lands of a dark color, the proportions of potash and nitrogen may often, if not always, be reduced by from 25 to 50 per cent. Every farmer must necessarily judge for himself, with the aid of the general suggestions just given, to what extent the formulas should be modified.

FORMULA NUMBER ONE.

For corn on old worn uplands—
(1) Acid phosphate (14 p.c.) 1,000 lbs
(2) Muriate of potash... 30 lbs
(3) Or kainit, 120 pounds
(4) C. S. meal (7:2½:1½) 1,250 lbs
2,280

This formula (employing muriate) would analyze about 7.50:1.48:3.83, or relatively the same as 10:2:5. On fresh soils, or well improved old lands, or bottom lands of a loamy character, reduce the potash and cotton seed meal. Apply enough to get from 50 to 150 pounds acid phosphate per acre.

FORMULA NUMBER TWO.

For cotton on old worn uplands—
(1) Acid phosph'te (14 p.c.) 1,000 lbs
(2) Muriate of potash... 75 lbs
(3) Or kainit 300 pounds

(4) C. S. meal... 700 lbs
Employing muriate would analyze about 8.87:2.70:2.70, or relatively the same as 10:3:3. On piney woods soils add 100 pounds nitrate and more cotton meal. On very bottom lands and fresh soils, use less muriate and less cotton seed meal. If fertilizing very old lands, muriate and cotton seed meal may be left out entirely on the bottom lands. Apply so as to get from 200 to 400 pounds of acid phosphate per acre.

FORMULA NUMBER THREE.

For sweet potatoes—
(1) Acid phosph'te (14 p.c.) 1,000 lbs
(2) Muriate of potash... 250 lbs
(3) Or kainit (1,000 pounds kainit)
(4) Cotton meal (7:2½:1½) 1,100 lbs
Employing (1), (2), and (3) would analyze about 8.40:1.75:4.00. Apply so as to get from 200 to 400 pounds acid phosphate per acre.

FORMULA NUMBER FOUR.

For cow peas, clover and legumes generally—
(1) Acid phosph'te (14 p.c.) 1,000 lbs
(2) Muriate of potash... 100 lbs
(3) Or kainit, 400 lbs.

With (1) and (2) would analyze about 12.75 and 4.50.

Apply enough to get from 200 to 300 pounds of acid phosphate per acre.

FORMULA NUMBER FIVE.

For melons, cucumbers, squashes, pumpkins, etc.—
(1) Acid phosph'te (14 p.c.) 1,000 lbs
(2) Muriate of potash... 250 lbs
(3) Or kainit, 1,000 lbs.

(4) C. S. meal (7, 7½ and 1½) 1,000 lbs
(Or better, C. S. meal 500 pounds and nitrate of soda, 250.)
This would analyze about 8.00 and 7.00 and 5.00.

FORMULA NUMBER SIX.

For garden vegetables generally—
(1) Acid phosph'te (14 p.c.) 1,000 lbs
(2) Muriate of potash... 250 lbs
(3) Or kainit, 1,000 lbs.

would analyze about 8.40:7.50:4.00. Apply so as to get from 300 to 600 pounds acid phosphate per acre. It would be well to use 400 of cotton seed meal and 200 of nitrate of soda, applying the latter ½ at planting, ¼ when plants are several inches in height and ¼ when buds commence to appear.

FORMULA NUMBER SEVEN.
For garden vegetables generally—
(1) Acid phosph'te (14 p.c.) 1,000 lbs
(2) Muriate of potash... 250 lbs
(3) Or kainit, 1,000 lbs.

(4) Cotton meal (7, 7½ and 1½) 1,500 lbs
(Or C. S. meal 1,000 and nitrate of soda, 250.)
This would, using (1), (3), and (4) analyze about 5.00, 4.00 and 3.00. Apply so as to get from 300 to 600 pounds of acid phosphate per acre, according to the quality or productiveness of the soil. The nitrate of soda should be used by itself, one-third at planting, one third in two or three weeks and one-third when near the fruiting stage. Beets, onions and cabbage, cauliflowers require very heavy fertilizing.

R. J. REDDING.
Director Ga. Ag'l Exp't Stat'n, Spalding Co., Ga.

A HARROW THAT DOES GOOD WORK.

Correspondence of The Progressive Farmer.
Every locality is in some respects different from all others. So any Southern farmer would do well to take a Southern agricultural paper—and my advice is, take The Progressive Farmer, a Southern paper, because it is directly in the South and its writers are men that are in the practical interests of farming and trucking.

We seem to think that vegetables grow larger in the North than they do in the South, but if we could give the land the quantity of well-prepared plant food as they do in the North, and the care, we would do as well. Of course, the land must be properly prepared.

And it has been a subject of much thought with me to get a machine that would grind the clods to a fine meal in my vegetable farm. I bought an iron harrow and had the teeth all made into knife blades and bent back so as to slide up on the clods and cut them fine or crush them fine. It seems to be quite a success. The harrow is so constructed that it can be widened out or made narrow and bring the blade so close to each other that they cut fine and deep. By putting on weight it does the work. And takes less horse power. Land cut much finer than the disk. We work only one horse and good work with disk requires three horses; so this is a great saving of power. The weight alone under the row system cuts the hard clay clods. Then I have a drag harrow, so I can manage the worst of land. We all know how to make land fine, but we want to know how to do it in short time and at little cost.

R. R. MOORE.
Guilford Co., N. C.

"SORE EVILS WHICH I HAVE SEEN UNDER THE SUN."
Some Common Errors as to Fertilizers, Forest Destruction, Disorganization, Etc., as Seen by a Halifax Farmer.
Correspondence of The Progressive Farmer.

Many of our farmers are now laying their plans for another crop, and some are preparing to go into debt, mortgaging their property and homes in order to buy high priced hoes and horses, high-priced farming implements, high-priced fertilizers, and even high-priced corn and meat, all of which are now being bought mostly on credit, with which to make an uncertain crop of cotton, the value of which is just as likely to be five cents as ten cents a pound next fall.

Would it not be well for us to stop and think a little before we rush into making our expenses too heavy? Suppose we curtail our fertilizer bills by buying only the chemicals and mix our own fertilizers at home. By adding a little of our rich scrapings in a compost pile with a little nitrogen, acid phosphate and potash or kainit, we can have a fertilizer just as good as the so-called guano, though it will not cost half as much per ton.

We know the use of fertilizer is profitable, but we often make serious mistakes in buying what we do not need. The losses from these mistakes often exceed the gain. Still it is impossible to establish any definite rule for fertilizing, which can always be followed on every farm for any length of time. Different soils need different fertilizers. Previous crops will have something to do with the requirements of the soil.

The farmer who expects to secure the greatest profits from his fertilizer must experiment on his own farm and a little work in that direction will result in great saving of cost of fertilizer. All soils need nitrogen, acid phosphate and potash to produce plant growth. But we should vary in application of each of these ingredients according to condition of the soil. Some soils need more or less of each. For instance, suppose the land made a crop of peas last year; then we need less nitrogen, and to put the same quantity of nitrogen in our mixture would be a waste. By reading our agricultural papers and Station bulletins, we can get lots of valuable information along this line.

I notice our farmers are clearing more and more of the forest every year. Now this is a great waste. Yes, a waste of timber, a waste of time and land. Yes, we are abandoning the worn out arable lands to cultivate among stumps and roots at the wear and tear of team and implements. Why not haul the woods moul, straw, leaves and ashes from the forest to these old worn-out fields and plow deep when we will be free of stumps and jerks? Leave our timber to grow.

While we have our forests around us, we shall not be subject to severe drouths. We can certainly haul mould, ashes, etc., at much less cost than we can clear the forest. Then keep a fence around forest and let the pigs have free access to it. They will find something there to eat and keep healthy.

Then again I have noticed some of our farmers will plant corn on our hills or highlands, which produce about two or three barrels of corn per acre at a great damage to the land, without returning anything to the soil. Now would it not be well to plant the rich bottoms in corn, where we can make 5 to 10 barrels corn per acre? Those that have no bottom land probably can rent some near by cheap, or else can plant peas or clover to vegetate the land to plant in corn each year, making a shift to another field every year.

I notice also that very few farmers are educated at these so-called agricultural colleges. Most of the boys are from towns. The farm boys who are educated there do not return to the farms, but find some other employment. Why is this? I would like to see the old fields look flourishing as of old. We cannot expect it as long as the drift is to the towns. We see most of the old mansions in the country now occupied by

negroes or left to rot down, while the towns are filled with loafers.

As to prices: Can't we control the price of our produce as much so as the merchant does his goods? Let us set our price, and not sell for less. I mean one and all by thorough union, say corn so much, meat so much, eggs so much, poultry so much, and cotton and tobacco so much. Then stand there. We can't buy what we need at our price, so why should we sell what other people need at their price?

AGRICOLA.
Halifax Co., N. C.

We must have more and better forage crops. The country is being cut up into small farms for fruit, but we must keep stock to keep up the land.—E. J. Johnston, Van Buren Co., Mich.

FARMING THAT PAYS.

What One Randolph Farmer Has Done.

Correspondence of The Progressive Farmer.
We see and hear a good deal that is calculated to discourage the ordinary farmer—run-down old fields, poor crops, dilapidated buildings, poor stock, etc. These every-day scenes are exceedingly damaging to all agricultural progress, as young men who are ambitious to have things in better shape about them shudder and shun all such lines of toil and privation; consequently they are leaving the farms of their fathers by the hundreds to seek positions elsewhere, which they think promise better things.

But there is a brighter side to farm life even here in North Carolina, where we seem to be tied down to old slipshod methods and ways of doing things. It is certainly in spring to find an occasional exception. That farm life can be made beautiful, pleasant and profitable has been clearly demonstrated, for instance, by Mr. Thos. J. Finch, of Randolph county. His farm contains six hundred acres, a large part of which, a few years ago, was apparently worthless. Now, it is a refreshing oasis, proclaiming to all who chance to pass that way, that good farming pays!

Mr. Finch has 140 acres in wheat this season, and made last year on about the same acreage 3,495 bushels of first-class wheat. He usually plants 75 acres in corn; the yield last year was 4,000 bushels. Then he has 50 acres in cow peas for hay, 40 acres in clover and grass, besides an ample acreage in permanent pasture.

Wheat, corn, Berkshire hogs, cattle and mules, are the specialties, and I noticed that these leading crops are well chosen, as the location, soil and general water supply are admirably adapted to extensive and profitable stock raising.

The barn—a notable feature about the place—is 137 feet long and 60 feet wide and well arranged for every purpose of a good barn.

Another striking feature about this farm and buildings was the entire absence of tobacco barns and cotton gins, as there is not a single plant of tobacco or a hill of cotton grown on the place, although it is well adapted to the cultivation of both. Grass, stock and grain growing pay better; besides it is nicer work, and keeps in motion a train of cumulative forces, which are all the time adding to the productive powers of the farm.

Really good farming pays!
J. EDOM SMITH.

I have raised artichokes successfully the past few years and I have found them a good food for hogs. For best results the soil should be rich and loose, and if of a sandy nature so much the better. In such land properly prepared they yield from 400 to 600 bushels per acre. They should be planted early in spring in rows 3 feet apart. Drop one and two eyes in each hill, the hills from 15 to 18 inches apart in the row. Cultivate sufficient to keep weeds down until the plants are 2 feet high.—George M. Casey, Jackson Co., Ind.

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HARRY FARMER'S TALKS.

XVII.

Correspondence of The Progressive Farmer.

A great deal of hard work is done to no purpose in making compost. Excepting for garden or truck the ingredients might as well be placed in the soil where the crops are to be grown. A bushel of cotton seed mixed with two or three loads of ditch bank and piled up, will give no better results, and often times not as good, as they would spread on the land and plowed under without being composted.

Cut a small ditch around the fields so that trees cannot draw on the land. A small field surrounded by woods is often "sapped to death" by the roots, which sometimes will reach 150 feet out into the cleared land.

Do not cut ditches too wide. A deep ditch that is just wide enough for a man to work in is worth more to drain land than a wide shallow ditch and is not so apt to be filled by the freezes during winter.

Here is a remedy to prevent hawks from catching chickens. Get a ball of sewing cotton and string out over the yard like a spider web, you can tie it to trees, fences, houses or stakes just high enough so that it will not be in the way of your head. It is not necessary to have it very thick; one string about 10 or 12 feet is sufficient. It helps greatly. If you can cover the yard as far as the chickens range they will be safe. Five cents' worth of cotton is enough to cover a half acre.

If chickens, birds, etc., bother your corn when you plant, it can be prevented by placing the grain in a pot or some other tight vessel and to every peck add about a gill, of pine tar (coal or gas tar will do) and pour boiling water over it. This melts the tar or makes it spread easily then stir until the grains look like they were varnished. Drain off the water and dry with road dust, ashes or soot. It will be easy to handle. Tar is very distasteful to most animals. A great many farmers confine chickens to prevent them from destroying the young corn. If the plan of tarring is used there will be no need of this. Rice can be treated the same as corn with no injury to the crop.

A farmer said he was going to buy a certain brand of fertilizer because it was cheaper by \$2.50 in the ton. We called his attention to the bulletin published by the North Carolina Department of Agriculture to show him that so far as the commercial value was concerned, he would actually pay more than to buy the higher priced goods. If our farmers would read more it would put money into their pockets.

HARRY FARMER.

Columbus Co., N. C.

Rocky Mount Motor: During 1900 Dr. C. L. Killebrew sold in Rocky Mount over 1,400 dozen eggs, the surplus of his poultry yard. In selecting stock each year only the white fowls are retained, and it is a pretty sight to see over 300 in one group at feeding time—Near Whitakers, a small village in upper Edgecombe county, and a few miles east of Gold Rock, in Nash county, Mr. Louis T. Brodie is successfully engaged in chicken raising, having an elaborate plant and many incubators.

In raising hogs it is the best and cheapest for the pigs to come in April. By that time the weather has become warm, grass begins to come, ready for the sows and pigs; besides this they should be slopped at least once a day, in order that the sow may suckle well. By nice treatment by fall the pigs are of a pretty good size and you can fatten them or keep them over for another year. It pays for hogs to have age, they have more muscle or lean meat. Does it pay to raise them in this part of the country, Southwest Virginia? I answer it does. It is better to have a surplus of anything than not enough. The bacon made in this part of the country always brings a good price.—Robt. C. Allison, Glade Springs, Va.

The Dairy.

U. S. SENATE AND GROUT BILL.

Dairymen Must and Will Keep up the Fight Against the Oleo Fraud.

Correspondence of The Progressive Farmer.

What has become of the Grout bill?

That is a question that is being asked from one end of the country to the other by farmers, butter makers, creamery men and butter dealers, as well as everybody else connected with dairying.

The Grout bill was introduced in the House Dec. 16, 1899, by Mr. Grout, and referred to the Committee on Agriculture. The National Dairy Union had been organizing for a year to push this bill to a successful passage. But the dairy interests of the East and West were divided and it was not until February that they finally decided upon the Grout bill and agreed to support it.

The representatives of the dairymen, did not get to Washington until March 7, after three months of valuable time wasted, and the enemies of the measure had fixed the bill in committee so they thought it never would see the light of day. The chairman of the committee, Mr. Wadsworth, thoroughly opposed the bill, consigned it to the tender mercies of the sub-committee on animal industry, of which Congressman Lorimer, of Chicago, was chairman, and of which committee four out of five were opposed to the bill. It was thought that this move had practically killed the bill.

The dairymen, however, went to work, and while it required three months of continuous work of the most strenuous nature to do it, they finally compelled the sub-committee to make a report. This report was adverse to the bill, and what is now notorious as the Wadsworth substitute was recommended in its place.

Having the matter before the full committee the dairymen had a fighting chance, and after a battle for more than two weeks between the two measures, the committee as a whole finally rejected the Wadsworth substitute and recommended the Grout bill.

It was then too late to secure consideration in the House at that session. The bill went over with a special order for consideration Dec. 6, at the next session, and on Dec. 7, after a sharp fight, was passed in the House by a majority of 104, the vote being 196 to 92.

The measure was then sent to the Senate, where the friends found new danger to its safety. The Senate committee on finance, to which by its character as a tax measure it naturally belonged, had for chairman Senator Aldrich, of Rhode Island, who was outspoken in his antagonism of the measure, and the friends of the bill knew that it would be almost impossible to get a report at that session, even if the committee were favorable, if the chairman were against it. The friends of the measure therefore made a fight to send the bill to the agricultural committee, which had more time to consider it, and there they felt the chairman would give them fair play.

The Senate stood by the dairymen in this matter, and sent the bill to the agricultural committee. Then began one of the most outrageous attempts upon the part of the oleomargarine makers to delay the hearings and final report that ever was known before any committee in Congress. They had people all over the country telegraph that they desired to be heard against the bill, but could not come until after the holidays, etc. But Chairman Proctor knew full well what their scheme was and forced them to go ahead. Dozens who telegraphed that they desired to be heard never appeared, nor had any idea of appearing, but as it was there were about 50 witnesses examined upon both sides, and the committee could not report until Jan. 26, leaving but a month to get the bill acted upon in the Senate, which was a very short time. The report was favorable, however, and the chairman of the committee, as well as all

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