

# PROGRESSIVE FARMER

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

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## Agriculture.

### COMMERCIAL MANURES.

How to Study the Soil and Find What is Needed.

Correspondence of The Progressive Farmer.

In manuring it depends greatly upon the condition of the soil and partly on the crop grown as to what fertilizer or combination of fertilizers to apply. If there is a sufficiency in the soil and in available form of the fertilizer applied there will be no increase of the crop, but if there is a deficiency in that one element alone, its application in however small a quantity will result in a large gain in the crop.

This is one reason of the wide difference in results in using chemical manures, and also causes waste in quantity applied and consequently increased cost. Frequently half a ton is used when much less quantity would produce as good, if not better, results. Sometimes a fertilizer is applied, which, coming in contact with another element in the soil, neutralizes it and the fertilizer is rendered valueless, and its cost lost by ignorance in regard to the action of the chemicals.

Farmers who are interested in growing crops cheaply and successfully (and what farmer is not?) should apply soil tests to their land, that they may know what their soil needs most, and, with proper application, what crops would be most profitable to grow on the soil. Soil tests will show that some lands not now favorable to large crops of corn can be made so at a trifling expense; and the same in regard to wheat, the land can be made to produce a larger crop and more profitable if it is known what the soil lacks.

Soil tests furnish this information and every one interested in agriculture may learn of his own knowledge and under his own eye what his soil needs and what his crop wants. Until farmers know what their soils lack and what the effects of the constituents used for their growth separately and combined, a rational system of manuring is impossible.

A soil cannot be cultivated understandingly until it has been rigidly subjected to such examination as will tell us, as nearly as any examination can tell it, what is necessary to render it fertile. The mode of cultivation, the salts already contained in the earth, but especially the period, mode and form in which a manure is applied, all combine in influencing its results.

A chemical analysis gives only what the soil contains at the moment of examination and not the quantity in which these constituents may be available to the plant during growth but if it is desired to know whether a soil is already provided with nitrogenous matter, it is sufficient to sow a handful of wheat upon a small square of ground which has been manured with mineral substances only. Without the aid of nitrogenous matter the mineral matter has scarcely any effect upon wheat. Therefore, if the small square of ground gives a rapid and healthy vegetation and a good crop, it shows that the earth had a sufficient supply of nitrogen, for the mineral manures contain no nitrogen. On the other hand, to ascertain whether soil contains a sufficiency of the mineral manure (phosphate of lime and an alkali, potash or soda) manure plants, planting one with corn and another with potatoes. The great influence that phosphate of lime has on cotton, corn, sugar cane, and sorghum, and the alkalies on potatoes and tobacco, is well known; therefore, if the corn or cotton flourishes we may be sure that the land has enough phosphate of lime, and if the potatoes flourish the land does not lack alkalies.

Thus two experiments requiring but a small plot of ground and trying these different crops are sufficient to obtain the indications necessary to a judicious system of culture. The varied yield of these crops compared with that from land manured with nitrogenous and mineral substances combined will measure the richness of the soil.

Since manures are the nourishing material of plants, and other things being equal, the higher profit of the field depend only and alone on the greater easily extracted quantity of the same found in the soil; therefore, the more accurate knowledge of this substance, its preparations and use, and how it may be procured on a farm in sufficient quantity and with the least cost, is of the greatest importance to the farmer.

The soil cannot produce or build up plants unless it contains the ingredients of which such plants are composed. With nitrate of soda, fine ground phosphate of lime, alkali, carbonate of potash or carbonate of soda, we can now obtain as the basis of operations in the best form, complete manures for every culture, made according to any formula and containing in readily available and assimilable form all the ingredients called for.

There is no one subject in agriculture which demands at the present day more carefully continued and widely extended experiments than the practice of manuring.

ANDREW H. WARD.

### HARRY FARMER'S TALKS.

Correspondence of The Progressive Farmer.

Harry Farmer wishes to talk a little on farm topics and hopes to help his fellows in the same calling. He will try to mention some things that need to be done and some that should not be done as he travels over the farm throughout the year.

Now Harry Farmer likes stock and poultry and wants to see them comfortable in the winter. So he must look about the barn and see if the stables are in good condition. See that there are no large holes for the cold winds to come in and chill the cows. Put in some clay in the bottom of the stalls and pack it down hard so that all the manure may be saved. This clay floor will make the work of cleaning the stalls much easier.

Mary Jane (that's my wife's name) told me that eggs were a good price and the hens were not laying much. I noticed that there were a great many feathers scattered around under the houses; that nearly always stops the hens from laying. Hens sometimes will get too many sweet potatoes; this does not help egg production. Scatter some oats in the potato patch when you go to dig and in a few weeks your hens will have something to help make eggs. Another good plan is to tie a bundle of oats, wheat or rice so they will have to jump up to get it and in a short time you will find a nest of eggs. It is the exercise which does the work more than the grain.

In the Southern part of the State oats should be sown. Prepare the land well, for it pays well for the extra work. I advised a young man to plow his land twice, once before sowing and once afterwards. He said he plowed a part of his land the year before twice and the crop was double on the land but never thought the plowing had anything to do with it. The more you stir the average land the greater will be your crop of everything. Our farmers do not sow as many oats as they should. They are less costly than the corn crop and when followed by cow peas, will improve the land faster than any grain crop grown.

HARRY FARMER  
Columbus Co., N. C.

When the inhabitants of the upland cotton section of the Atlantic coast attain sufficient intelligence and power to suppress the yellow dog, of which it is related that "every poor man keeps two and every — poor man keeps four," that section may become the centre of wool production of the world, while the sheep fed with the nitrogenous cow pea vine and the fat-producing cotton seed meal will renovate the slave-stricken soils of these States and will bring them to the maximum production of food and of cotton and woollen fibres.—Edward Atkinson.

Do you think a church would increase its membership if no meetings were held that outsiders could attend.

### WHAT HUMUS IS.

It has come lately to the knowledge of many farmers that there is a condition of soil that will help very materially in resisting drouth, and this is a point that it is proposed to discuss, says Farm and Home. First we must learn to realize the word "humus" and to know what it means. It should become a common word in agricultural reading and speaking. Humus is "decaying and decayed vegetable matter." Manure makes it; green crops plowed under form it; clover roots when decaying in the soil create it; every plant when it returns to mother earth takes the form that is called humus, and adds two things to help coming crops. Heretofore most of us thought that it did only one thing, add fertility to the soil. We all know that manure makes the land richer, as we say, but they are comparatively few who understand that not only does humus make the land richer, but it also preserves soil moisture under the influence of hot winds and scorching suns. Humus is one of nature's methods for storing up and holding it. Our clay subsoil will store up water, but when the south winds blow and the hot suns burn it begins to give up water by the ton, and it is carried away from the crop that stands so much in need of it. But when humus takes up water, as it can in large quantities, it holds it locked fast, in spite of sun and wind. When the roots of growing grain take hold of this humus to feed upon its fertility, they also find in it the water; it supplies drink as well as victuals. The moisture of the soil may have been largely evaporated, but wherever the roots find humus they find food and water needed to dissolve it. Humus is the cheap means that can and will prevent the losses of what otherwise would be disastrous drouths.

### IRISH POTATOES IN VALLEY FARMS.

Correspondence of The Progressive Farmer.

The new land in the University fruit farm was used for an experiment with Irish potatoes, the tubers being planted between the orchard rows, parallel to the slope of the land. The ground was cleared in March. The trees were planted in early April, after which the land was plowed and thoroughly disked and all the larger roots were removed. The potatoes were planted at three different dates, June 1, June 26, and July 27, the last planting being of tubers grown this year. Despite the drought of August and September, the soil was fresh below the surface mulch, which was maintained by frequent use of the horse hoe, the rows being hilled with hand hoes after the third cultivation.

The plants from the first two sowings came weak, and the very hot, dry summer was unfavorable. The third planting came stronger, but the dry heat prevented vigorous growth, so that in all three plantings few tubers were formed, and these were uniformly small.

The crop is practically a failure, but the lesson of the experiment is a valuable one, namely: that it is useless to attempt to grow cool weather crops in the heat of our long dry summers. In valley farms the potatoes must be planted early, so that its principal growth will be made before August, when the summer drought usually sets in. There are exceptional years, when summer rains are seasonable, in which late planted potatoes are successful. In the high mountain valleys, where summer heat is less intense and showers more frequent, late planted potatoes should yield good returns.

CHARLES A. KEFFER.  
Knox Co., Tenn.

A conservative estimate of Florida's orange crop this year places the yield at one million boxes. The groves are in healthy condition and at this season the fruit is beginning to be marketed. Before the freeze in 1895, when the yield was five million boxes, they sold at 50 cents, but this year the average price per box is \$2.

### AUTUMN FARM LIFE.

Correspondence of The Progressive Farmer.

At this season on the farm there is such a diversity of life and labor that one can hardly become tired, as change produces rest, and work is constantly changing. As we shout "Harvest Home," and drive the last load of corn to the barn we rejoice, and feel, if a full crop is garnered, that our bread is sure; and if a short crop, plan to use it to the very best advantage and where it will do the most good.

With hay all harvested, ground peas shocked and curing, cotton gathered in and most of it marketed, we turn our attention to the fattening hog and the milk cow, and some of us think our cows worthy of at least as good fare as we accord to the fattening hogs, and turn them on the peas, etc., as soon as we turn the hogs in.

The sweet potato crop is perhaps the cheapest crop the farmer can raise for hogs in Eastern North Carolina. As potato digging is in progress, a plan new to many may be successfully tried. Cut off the vines and with a good sized two-horse plow throw the potatoes out on one furrow and thus avoid cutting and bruising the tubers. This plan is quicker and easier as well as safer.

It has been so dry that in some sections sweet potatoes are scarce, but where we cultivate flat and have land well fertilized in spring the crop has done well, and the potato harvest is good.

We lack one thing here in Eastern North Carolina, and that is a crop of late apples for winter use, our orchards having failed almost entirely this year. But our mountain friends have dried many and we will enjoy them and be thankful.

The crops generally harvested, fall oats sown, plats prepared for early cabbage, cows, hogs and chickens all happy, we pause and look around us, retrospect and prospect. The long evenings have come, and we feel so glad that "God setteth the solitary in families," (Psalm 68:6) and we gather us around the open fire place, and feed the part of our nature that is above the elements raised on the farm though not entirely independent of them. These long evenings enable us to cultivate the mind, and the more we have in our homes of the best, periodicals of the day, the better will our children be up on the general topics of the day, and the more will they be benefited by the text books in school.

What a pleasure it affords us to help the children with their difficult exercises, or point them to some book that will enable them to find out what they wish to know. I feel sorry for that child whose parents or elder brothers and sisters pretend to be too busy to answer the child's questions and to help it to an understanding of the things that to the child seem so dark and difficult.

Then with lessons learned—and we all have some to learn every day—we can enjoy the merry happy song which cheers the household. How pleasant to gather around the organ, guitar, violin or any other musical instrument and spend an hour in song that cheers the heart, revives the body, and fills the soul with rapture! One gets a better night's rest after an hour so spent, the children retire with more cheerfulness and their dreams, if they have them, are more pleasant.

If we expect a harp and a crown in our home above, it is a duty devolving upon us in our temporal homes to learn to use the harp and to wear the crown with that dignity that comes by patiently and faithfully bearing the crosses of life.

Success to The Progressive Farmer.  
D. LANE.

Craven Co., N. C.

Success in farming in the South demands abandonment of negro tenantry and partnership in crops, a system of farm book-keeping, an acquaintance with the market prices of products, avoidance of waste of time, material and energy, avoidance of debt and persistent industry.—Ex-Gov. W. J. Northen, Ga.

### THE SILO—SOILING CROPS IN DRY SEASONS.

Correspondence of The Progressive Farmer.

The provisions made against dry summers and falls such as the season just passed presented depend a good deal upon the farmer and the character of live stock he has. A man with scrub cows and run-down sheep or swine will not exert himself much to prepare ahead of time for emergencies. But if one owns pure bred or graded stock of any kind he is pretty sure to make provision against drought. If one does not intend to supply the animals with good food other than what grows naturally in the grass field, the scrub cows, sheep and swine are the best for his purpose. They can hustle for a living better than the pure bred or graded animals. But most intelligent farmers today make a pretence at least to keep good stock, and they cannot afford to run the risk of carrying them over a dry season with scarcely nothing in the way of green, succulent food to feed on. Never was the value of the silo and soiling crops better demonstrated in many localities than this season. They have saved many a dairyman and stockman losses that would have turned the balances on their ledger on the wrong side.

Last year there was drought enough to convince many farmers that the silo was essential for correct summer feeding. By raising corn for the silo they made provision against any accident to the summer crops, and enabled them to carry their animals along successfully, summer or winter, through any kind of weather. Consequently more silos were probably filled this year than ever before. Silos built large enough will not only carry the cattle through winter, but they will have surplus enough to make up any deficiency in the summer crop. Of course cattle do not take to ensilage when they can get green grass and fodder corn, but they much prefer it to the poor pasture that many animals have to put up with in midsummer.

The natural accompaniment of the silo for summer feeding is a good soiling crop. With these two properly raised the stock raiser or dairyman is entirely independent of the weather, and a drought does not affect him at all. Fodder corn can be planted early in the spring for a soiling crop, and when dry weather comes there will be food in abundance. The cows then instead of hustling for a living in bare pasture fields can eat good meals in the cool, quiet, shady parts of the fields or barn yard. What a difference this makes in their milk and butter production, and also in their general health! And yet the extra labor and cost required to do this is insignificant. It is something that a dairyman must do if he would make money in these days of competition and comparatively small profits.

W. E. FARMER.

We believe more attention should be paid to our native pasture grasses in the Southwest, and that, instead of plowing and harrowing, buying seed and planting, and often waiting two or more years for a pasture, we should give the native grasses a chance. We know of cases where a thorough scarification of the soil in February has without any other effort doubled the crop of grass. The fact that the native grasses have taken and held possession against all comers shows that they are adapted to the conditions, which may or may not be the case with other grasses. Disking and cross-disking is about the thing needed to give these grasses a new lease of life, and in many cases it is necessary to their preservation. Those who try this process, we believe, will be surprised at the vigor of the new growth that will spring up after this treatment and after the first warm spring rains.—Farm and Ranch.

The farmer with the richest soil is not the one who comes out best at the end of the season. It is generally the man who has paid the most attention to business.—Ex-

## The Poultry Yard.

### PREPARING POULTRY FOR MARKET.

Prof. Jas. W. Robertson, Canadian Commissioner of Agriculture, has issued a bulletin, "Pointers for Poultry Fatteners," which contains practical information for farmers and poultrymen desirous of fattening for market. It says:

1. Plymouth Rock, Wyandotte, Dorking, Cochin, Brahma or Indian Game chickens, or crosses of these, are more easily fattened than chickens of lighter breeds. They should be put up at from two and one-half to three and one-half pounds each. English buyers object to black legged poultry.

2. The most profitable period for fattening is about four weeks.

3. Be careful not to overfeed chickens during the first week. Feed lightly three times a day. Remove any feed left in trough half an hour after feeding. Keep the trough clean and sweet.

4. After first week give chickens all they will eat regularly twice a day.

5. The oats must be ground very fine. Oats ground as for horse feed are not suitable.

6. Feeding skim milk whitens the flesh, which is desirable.

7. Put a little salt in the feed.

8. Give water in the trough twice a day.

9. Give some form of grit twice a week. Sifted gravel will do.

10. Feed tallow during last ten days. Begin on one pound per day to 70 or 100 chickens, increased to 1 pound to 50 or 70 chickens.

11. To prepare tallow. Weigh quantity required for three days, melt it, and thicken while hot with ground oats. Mix one sixth of this paste with the morning and one-sixth with the evening feed.

12. Rub a pinch of sulphur under both the wings and tail of the chickens to kill the lice.

13. Do not feed with the crammering machine longer than two weeks.

14. Do not feed a fowl by machine until its crop is quite empty.

15. Remove foot from pedal of crammer before fowl is pulled away.

16. Keep a record of ground oats, and of skim milk fed to fowls per week, and also their grain in live weight per week.

17. One gallon of milk weighs practically ten pounds.

18. To record feed consumed per week: Weigh each new bag of meal before commencing to feed from it, and place the weight in a book. At the end of the week, add together the weights of bags of meal fed, and also weight of meal taken from last bag.

19. To obtain record of gain in live weight of fowls: Weigh each crate empty and mark the weight upon it; weigh crate when fowls are placed in it, and again on each succeeding week, at same time of day and before feeding. To prevent injury to the toes of the chickens between the slats and the scales, place two or three thicknesses of bags on the scales.

20. If a chicken gets off its feed, remove it from fattening pen for a few days, allowing it free run.

21. Do not allow fowls any food thirty-six hours before killing.

22. Kill chickens by dislocating the neck, or by bleeding in the roof of the mouth. Use care so that no outside blemish is made.

23. Dry pluck at once, while the fowl is warm. Pluck clean, leaving only a ring of feathers an inch and one-half around the neck.

24. As soon as plucked, place chicken on shaping board to give it a compact, square shape.

25. When cool, wrap in clean paper, and pack tightly in shipping case to prevent injury from knocking about.

26. See that fowls, paper and cases are kept perfectly clean.

Several new advertisements of improved stock for sale appear this week. Our advertising columns are for the benefit of all who wish to buy or sell, and no reader gets the full value of The Progressive Farmer any week until he has carefully examined them.