

Our Farm Department

Devoted to the Interest of Those Who Till the Soil

CONDUCTED BY J. M. BEATY

The Composition and Production of Barnyard Manure.

To Liebig, the great German agricultural chemist of the nineteenth century belongs most of the credit of discovery and first investigating the natural relations between soils and plants and between soils and fertilizers. Chemistry has not only shown why fertilizing agents should be applied to the soil, but also how and when they should be applied. By the term manure is commonly meant the solid and liquid excrement of animals, either alone or mixed with straw or other convenient litter. Sometimes the term is expanded to include all sorts of fertilizers. In this writing we shall limit the meaning to the barnyard product.

Plants derive their sustenance from both air and the soil, and are made up of water, organic combustible substances and inorganic, incombustible materials, commonly called minerals.

A great per cent of the organic portion of the plant comes from the air and comprises hydrogen, oxygen, and nitrogen. The inorganic or mineral parts come from the soil and include lime, magnesia, phosphoric acid, sulphuric acids, chloride, iron, oxide, potash, soda and silica. Continuous cropping will in time impoverish the soil by removing these essential soil ingredients, and some means must be resorted to whereby the lacking elements can be restored.

The logical, and most natural, as well as the best and most valuable method of soil restoration is by the use of barnyard manure; for, unlike all other kinds, it contains without exception all the constituents necessary to good soil, and fulfills all the requirements for producing perfect, cultivated crops. Farmers who have used both commercial fertilizers and old fashioned barnyard manure know from experience that the latter is by far the best for general purposes.

Chemical analysis of barnyard manure shows the presence of nitrogen, in the form of ammonia, nitrates and other nitrogenous substances; humus, phosphates, sulphates, lime magnesia soda potash and silica.

This is what we may expect; for all these come from the foods of the animals. All these are sufficient to supply the missing components of any soil. The most important of all the constituents of manure are lime phosphates and potash.

As the farmer cannot control the composition of the air he must direct his efforts towards the soil and familiarize himself with it through experience and by the aid of chemistry so as to supply intelligently the deficient constituents to benefit his crops.

Generally speaking, farmyard manure consists of urine and solid excrement of farm animals, collected in stables on straw or other bedding materials. The straw acts as a valuable absorbent and retainer of the liquids, besides possessing several important compounds to enrich the land.

The percentage composition of manure varies greatly, depending upon the age and kinds of animals, their foods, length of time and manner in which it is kept. Young animals void less phosphoric acid and solid matter than older ones, because they need most of these to build up their bodies during their period of growth. In the voidings of mature animals, where the foods are not all assimilated, we find a better grade of manure. For the same weight of food cattle produce more dung than sheep and sheep more than pigs; the composition of course depends upon the kinds of food.

Practically all the mineral substances and ninety per cent of the nitrogenous compounds of the food of animals are recovered in the solids and liquids excreted; hence it can be readily seen how valuable a good coat of manure must be to the land.

Well fermented manure is better and more concentrated than the fresh article, and therefore more effective in crop production. If stable manure be hauled

direct from the stable to the field and be allowed to lie without plowing it under at once, it loses none of its fertilizing properties through evaporation. The gaseous ammonia will have passed off for the most part while lying in the stable or while loading on the wagon. The remaining ammonia is fixed in the form of chloride or sulphate, both very soluble compounds. These with other soluble solids are carried into the soil by means of rains and melting snows.

Modern successful farming depends almost entirely upon the use of fertilizing materials and manures and value of barnyard manure is appreciated more and understood better than ever before by the American farmer.—Indiana Farmer.

Beautifulizing methods that injure the skin and health are dangerous. Be beautiful without discomfort by taking Hollister's Rocky Mountain Tea. Sunshiny faces follow its use. 35 cents. A. H. Boyett, Druggist, Selma Drug Co.

Care of Sheep in Winter.

Of all stock the farmer can invest in, sheep are among the most profitable and are about the least trouble. They can feed on any kind of pasture during summer—pasture that would not be of use for any other stock—and, if there is enough of it, they will begin the winter in good flesh. The farmer should see to it that they are in good flesh. If he has not permanent pasture, he should sow rape for this purpose. The sheep may be brought to the barn and stabled, during the winter months, but this is not a necessity, as an inexpensive shed may be made in the sheep pasture, especially if it is not a great distance from the farmer's house. This shed may be left open on the south side, at least far enough to permit the sheep to go in and out at leisure. The loft of the shed may be filled with fodder or hay, to have handy to feed to the sheep; also it adds warmth to the shed. Feed shelled corn or shipstuff, at least once a day. Have salt where the sheep can get it when they want it. There should be good water in the pasture, where the sheep can have free access to it.

Give special attention to the flock during lambing season, that the little lambs may not freeze in extreme cold weather. Also notice that the ewes own the lambs, or they will perish. It is best to remove the ewes and new born lambs to a stall to themselves, till the lambs are a few days old, or strong enough to keep out of the way of the old sheep. It is well to look after the sheep the last thing before retiring at night, as they are one of the most profitable animals the farmer can keep, and the loss of the young lambs and maybe the mother sheep from neglect should not be allowed.

Sawdust is the best bedding to use, as straw works its way in the wool and damages it.—Indiana Farmer.

Hollister's Rocky Mountain Tea is simply liquid electricity. It goes to every part of your body, bringing new blood, strength and new vigor. It makes you well and keeps you well. 35 cents. Selma Drug Co., A. H. Boyett, Druggist.

Farms and Telephones.

A principle recognized by all men is that association, the contact of one man with another, brings about better business conditions. Thus a man who organizes a company does not try to isolate himself from mankind, but comes forth and associates with other business men. Just the ignoring of this principle, this lack of close association with his neighbors, with people in nearby communities, is perhaps responsible for the condition of some farmers to-day.

A regard for the opinion of others is responsible for most up-to-date movements. Farming methods a century ago would still suit a large number of farmers, but they are not pursued.

Contact with civilization is the first step towards converting a savage race. Contact with the people who buy the product the farmer raises is the first step towards bettering the farmer's condition.

Distance is a factor which has offered more opposition to the development of the social life of the farmer than anything else. With farm houses a quarter of a mile to several miles apart, the farmer's home must be secluded. In some seasons' outside communication is impossible, but the farmer is awakening to the use of the telephone, to which distance is no obstacle.

The use of telephones in farm life does not date back very far, but the percentage of increase in the number of farmers who are using telephones during the last four or five years is strikingly large. Each year sees the awakening of many farmers to the fact that the telephone is just what is needed to give the long sought privileges of the people in more thickly inhabited districts. When a farmer puts a telephone in his home it is time to watch him grow. He stops making unnecessary trips to town, and driving around the neighborhood to obtain information which can now be had in a moment. He assumes the attitude of a thorough business man, and really starts upon an up-to-date business career.

Does it not seem foolish for a farmer to hitch a team of horses on a load of hay, drive maybe ten miles to market and then find that he cannot hope or afford to make a sale? What would be more simple than to call up the market and ascertain the price which the product is bringing and the demand, before wasting a day's labor, and the services of a team in a useless journey. Conservative selling is what the farmer of to-day has practiced. Knowing when to sell the product of his labor, keeping the reserve supply in his own hands rather than on the market, will mean fairer prices. Farming to-day is a business and must be conducted strictly on business lines. Every modern business help should be sought by the farmer, but first of all he should put a telephone in his home.—Northwestern Agriculturist.

Edison on Work.

In the light of the present strike of union printers for an eight hour schedule, it is interesting to read the statement of Edison, the famous inventor, that Americans eat too much, sleep too long and do not work hard enough for their own good. Mr. Edison began life as a poor telegraph operator. He never asked a union how many hours he might work. Neither does any other man who makes anything out of himself.

There is not a successful business man, and certainly not a successful farmer, anywhere, who can thrive by working only eight hours a day. The employers of these very men who are striking, work ten and twelve hours a day to devise plans whereby to keep the business off of the rocks and to increase the volume, thereby increasing the jobs for the employes. It takes more than eight hours, except for a genius, to accomplish success in this world of competition, and even when we get close to genius itself, we find that genius is defined as an infinite capacity for hard work.

There is work which is drudgery, but usually it is the mere drudge who is doing it. With a man of right spirit, in good health, it is almost impossible to overwork.

Millions of people overwork—and it is not always the wage-earner who is the victim of the overwork ailment—but few, even among strenuous Americans, overwork. Edison is right.—Northwestern Agriculturist.

Divorces Increasing Everywhere.

Number of divorces in United States from 1869 to 1901, 700,000.

Men and women whose homes have been broken up, 1,400,000. Children deprived of home influence, about 4,000,000.

Number of divorces in next 34 years at same ratio, 30,000,000.

Divorces granted in United States in 1904, about 100,000. Divorces granted in Great Britain in 1904, 606.

Divorces granted in France in 1904, 9,401.

Divorces granted in Canada in 1904, 69.—Washington Post.

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WANTS TRADE COMMISSION.

Overman Would Spend \$500,000 Drumming Up Business.

Senator Overman, of North Carolina, probably will introduce in the Senate to-morrow a bill providing for the establishment of a world market commission to investigate market conditions throughout the world and make such recommendations as will promote the export of American manufactured products. It provides for a commission of members and the employment of experts, to last three years, and to cost not more than \$500,000.

It is stipulated in the title that the commission shall "consider ways and means for enlarging the export trade in cotton products and other manufactures of the United States." Emphasis is laid upon the need of the encouragement of cotton exports because of the enormous exports of raw material and the comparatively small manufacture of cotton goods in the South. The commission is modeled somewhat after British and German commissions that have made such investigations and have negotiated reciprocity treaties.

Senator Overman said at the Cochran last night that he did not intend that the commission should go into the tariff problem, as it should be non-partisan and for the benefit of all manufacturers. It is considered likely that the bill will meet with favor from the "stand patters," because it would sidetrack tariff tinkering, and by those in favor of reciprocity because the commission's finding might show the urgent need of reciprocity treaties to insure trade with certain countries.

"It is generally recognized that there is a strong need of such a commission because of the poor showing made by our manufactured exports as compared to our exports of raw material," said Senator Overman. "The cotton products of the South are increasing every year. The South exports more than 7,000,000 bales of raw cotton, which are manufactured into cotton goods in England and sent back to South America where \$52,000,000 worth were sold to Argentine alone last year. Why should we not get that trade instead of England?"

"Why should we not manufacture the cotton goods if we can get a market for them? This commission is intended to help find that market."

"And so it is in all lines of export. Germany sent out experts, who found what the countries to which they went wanted. They so informed their manufacturers, and they got the business. Why should we not do likewise? Instead of spending tens and perhaps hundreds of millions upon subsidies for American vessels to carry the goods of other nations, why not spend half a million to promote a trade for our ships to carry? What good will the Panama Canal do us if we are not ready to take advantage of its commercial opportunities? I believe the time is ripe for such a commission as I propose to do splendid work that will benefit the whole country."—Washington Post.

A Quiet Home Marriage.

A quiet home marriage was solemnized yesterday, Nov. 29, at high noon, when Dr. S. P. J. Lee and Miss Lizzie Wagstaff were united in marriage at the home of the bride's parents, Mr. and Mrs. G. C. Wagstaff. Rev. D. F. Putnam, of Benson, spoke the magic words, which changed two hearts to one. There being no invitations, only the immediate families of the contracting parties were present.

The bride wore a going-away gown of gray cloth. The groom was attired in the conventional black.

Immediately after the ceremony the happy young couple left for Dunn where they boarded the northbound train for Washington, Baltimore and other northern cities, in which place the honey-moon will be spent. They will be in Norfolk Thanksgiving day to witness the foot-ball game between the Universities of Va. and Carolina.

The bride is the charming and attractive daughter of Mr. and Mrs. G. C. Wagstaff and has a large circle of friends wherever known. The groom is a popular physician of Sampson county.

May their lives be filled with only enough shadows as to make the sunshine brighter.

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