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THE PROGRESSIVE FARMER.

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

Vol. 12. RALEIGH, N. C., OCTOBER 19, 1897. No. 37

AGRICULTURE.

CONTROLLING CROP PESTS.

A recent issue of the Albany, N. Y, Country Gentleman has this to say cerning one good act of our last legislature:

"A reader thinks we would do well to call attention to the method now pursued in North Carolina under the provisions of chapter 264 of the laws of 1897 of that State—'An Act to Prevent the Introduction and Dissemination of Dangerous Insect, Fungous and Weed Pests of Crops.' This act constitutes a special unsalaried commission consisting of the State Commissioner of Agriculture, the Director of the North Carolina Agricultural Experiment Station, and the President of the State Horticultural Society. It is the duty of this commission to 'adopt regulations, not inconsistent with the laws and Constitution of this State and the United States, for preventing the introduction of dangerous crop pests from without the State, and for governing common carriers in transporting plants liable to harbor such pests to and from the State, and such regulations shall have the force of laws.' The act goes on to say that 'no person, firm or corporation shall knowingly and willfully keep upon his or their premises any plant infested by any dangerous crop pest listed and published as such by the said commission, or permit dangerous weed pests to mature seed or otherwise multiply upon their land, except under such regulations as the commission may prescribe; every such infested plant and premises are hereby declared a public nuisance.' Acting under this authority, the commission declares the following insect parasites and fungous diseases of plants to be dangerous pests of crops: San Jose Scale, greedy scale, West India scale, gloomy scale, scurfy scale, oyster shell scale, enonymus scale, walnut scale, plum scale, peach yellows; peach and plum rosette; fire blight, and black knot.

HOW TO SAVE HOME-MADE MANURE.

Written for the Progressive Farmer.]

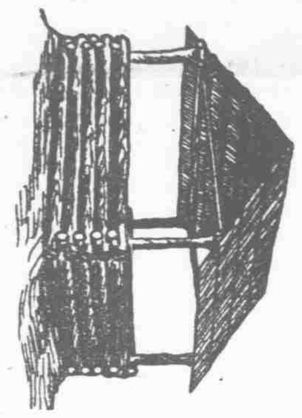
[Now that the guano question is attracting so much attention, we think the following article will make good reading. In another column we give a letter from Mr. A. L. Swinson on the use of guano, and in our "Weekly Digest" the article on "Home Mixing of Fertilizers" may prove interesting. —Ed]

RALEIGH, N. C.

We remember having once heard a practical man make a remark about the use of concentrated chemical fertilizers which appeared to have considerable common sense in it. He said that if we undertake to make a crop with such manures only, it would be like a laboring man trying to do a good day's work on one drink of whiskey. The liquor would stimulate his stomach and fire up his energies for a short time, but his system would soon feel the need of good, sustaining food. It is much the same way in fertilizing land with chemical mixtures.

Every practical farmer knows that good stable manure and home made composts are infitely superior and more lasting than many of the chemical fertilizers on the market, therefore any contrivance to help the farmer to accumulate and save such materials, in good condition and at the least expense, is desirable.

Many of our farmers allow enough material about the barnyard and stables to waste and wash away by rains, to make a large quantity of excellent manure. They do this mainly for the lack of a convenient place for the reception of the waste material of the household and barnyard. The sketch is intended to show an efficient and cheaply built manure pen which can be made by anyone at the cost of a few pounds of nails.



As shown in the cut, it consists of a rough roof of split boards, supported by four posts and surrounded by a pen of logs four or five feet high. The corner posts are set in the ground and support the plates and rafters The log pen is built up around the outside of the four posts and are notched in the style of a log cabin. All the frame work may be round poles and the roof of split boards or slabs. Plank may be used for the roof, but cost more. A shallow trench should be dug on all sides, for drainage, and the dirt from the trench heaped up around the bottom logs, to prevent the entrance of rain water.

Into this pen should be thrown all the stable manure, litter and droppings of the barnyard, ashes and night soil from the dwellings, slops, old bones, dead animals, oak leaves, sweepings, etc. Occasionally throw on some land plaster or dry earth, especially if the pen becomes offensive. The fact of having a handy place to deposit all such things will insure its being used for that purpose and result in much cleaner and more healthful premises, besides saving a large amount of excellent manure.

In the course of a year an astounding quantity of manure will be accumulated, at almost no cost whatever, and its qualities are far more lasting than commercial fertilizers. The pen should be conveniently located near the barnyard or stables, but not near the well. It should be the duty of some one on the farm, at frequent intervals, to clean up and deposit in the manure pen every available pound of material about the barnyard and stables, allowing nothing to go to waste. Occasionally mix and stir the materials with a shovel or fork, and if too dry, throw on some water from time to time so that the whole mass may become a well rotted compost.

Such a pen, 12x16 feet, will contain 960 cubic feet, if piled five feet deep. That quantity of loose earth will weigh over forty-five tons, but a compost will not weigh quite so much. A pen of that size would probably be of sufficient size for a two horse farm.

Those who have no better method of saving manure will do well to try this cheap home home farm pen. It will save many dollars, even on the smallest farm, in a year's time.

THOS C. HARRIS.

THE USE OF GUANO—FERTILIZERS.

Correspondence of the Progressive Farmer.

In your issue of October 5th, on first page, appears a set of resolutions relative to guano. I want to say at the outset that it is unwise and misleading in the statements contained therein, and that this is not what should come from any Alliance, to go to other farmers and Alliances, for many people will suppose these resolutions all right, because they would not know otherwise, and hence would take it for granted that as an Alliance had endorsed it, that they knew it was correct, before they would do so, when as a fact they only inferred it to be correct.

The "whereas" to these resolutions is correct and good as far as it goes. The first resolution in regard to the relative value of the fertilizers of to day and ten years ago, is very incorrect, and is not a good statement to go out for correctness. Especially is this true of the grades sold in our State—for instead of there being a shrinkage in the quality of the fertilizers sold here today and ten years ago, they are rather better. The fact that they are so deceptive in value is due to the wholesale use that is made of them with so little care—different methods give different results in the use of fertilizers, just as it dose in anything else, brother.

Resolution 2 is also bad, and hardly in keeping with Alliance influence. Now is it not a fact, (I say it is) that since the Alliance organized in North Carolina and established a standard grade brand of fertilizer, i e ,8 per cent. phosphoric acid, 2½ per cent. ammonia, 3 per cent. potash and contracted through our State Trade Agent to supply guano of that grade at $20 to $24 per ton, that the prices of all other guanos of like grade and proportionately so, drop to about same price as our Alliance guano; that is for standard grade, dropped from $25 and $30 per ton to $20 to $24 per ton? And these facts have been published and canvassed by our Alliance papers and officials as a reason for maintaining our Order.

Resolution 3 is rather off also, for it depends on the knowledge and tact in the use of fertilizer; that is to understand the quality of your soil, the need of the crop you are to grow and many other things just as important, in point of success, as bad seasons are, to make money by the use of fertilizers.

Resolution 4 is worse than all the rest, as it would constitute special legislation and force people to buy what they did not want, and in many cases not the most profitable; it would not be "equal rights to all and special privileges to none," for it would be a special privilege to such as needed that high grade fertilizer only to get it, but would prevent others who needed a lower grade from getting it and force them to take what was best for some quick-growing crop, to use where they needed a better grade, that is a lower grade, for their slow growing crop or go without any. And I want to go on record here and now as saying, that no one can farm profitably at the low price of soil products, without the use of fertilizers in the majority parts of North Carolina, and that it is the men who use from 1,000 to 3,000 pounds of fertilizers on their special crops that make the most clear money out of farming.

Resolution 5—first part of it is all O. K. the latter part is true in many cases, but is also offset by as many other cases, where it pays well and people will not quit the use of it—can't afford to.

Now, brethren, I have written what I have above simply to point out the fact that many people don't see things as you do, and again that the experience of all are different, too, and also on reviewing your resolutions and reading my review of them that you may see how it put us as an order of farmers to have an Alliance publish a set of resolutions along a line that is admissable, so many objections to.

I admire the spirit and united interest which I think prompted these resolutions, but we should be more careful, I think.

What the farmer needs in the fertilizer matter is to better understand how to use them; what they want, the real market value of the grade of the fertilizer they do need.

Instead of higher priced goods, we need to get just what we need for our crops for less money than we now have to pay.

You take the Alliance brand of guano, it has 8 per cent. acid, that is 160 pounds per ton, and this is worth 4½ cents per pound, ($7.20 worth of acid), 2½ per cent. ammonia, that is 50 pounds of ammonia in a ton, worth 12 cents per pound, ($6 worth of ammonia), then there is 3 per cent. potash, that is 60 pounds in a ton, worth 5 cents per pound, ($3 worth of potash), total 270 pounds of chemicals worth 16.20, the other 1,740 pounds is waste dirt worth nothing, and you pay from $20 to $24 for this $16.20 worth of chemicals, when you buy it in the form of manufactured guano; when I want a ton of guano equal to any standard brand that contains 8 per cent. acid, 2½ per cent. ammonia and 3 per cent. potash, I buy the following goods and mix them myself:

1,000 lbs. acid phosphate 14 per cent. acid contains 140 lbs. acid and cost in Norfolk	$5 00
400 lbs. of kainit 13 per cent. contains 52 lbs. of potash and cost in Norfolk	2 20
600 lbs cotton seed meal contains 52 lbs. of ammonia, 17 lbs. of acid and 10 lbs. of potash, and cost	6 60

Thus I get a ton in these goods that has 140 pounds in the phosphate and 17 pounds in the cotton seed meal makes 157 pounds of phosphoric acid in the lot; I get 52 pounds of ammonia in the cotton seed meal, and I get 52 pounds of potash from the kainit and 10 pounds of potash from the cotton seed meal, making 62 pounds of potash, all at a cost of $13 80, which, with freight added, generally cost me about $15 per ton delivered at my farm; thus I get a standard grade guano for $15 while most people are paying from $20 to $24 per ton, cash.

In conclusion, I want to say that Mr. Thos. B Parker, our present State Alliance Trade Agent, who will take hold about November 1st, is a practical farmer, and like myself, has made and used his own make of guano for years past and can, I judge, arrange for our Alliance people to get materials and make their fertilizers at a saving in cost of about 50 per cent. over buying manipulated goods. Mr. Parker is a neighbor of mine and a first class truck farmer, and knows what and where to buy fertilizers cheapest. Correspond with him for your fertilizers and compound your own and save money, too.

ABBOTT L SWINSON.

Goldsboro, N. C, Oct. 9, 1897.

ABOUT WEEDS.

Correspondence of The Progressive Farmer.

So important a part does the suppression of weeds play in the growth of all cultivated crops, that any means for assisting in the warfare incessantly waged against them is of the greatest practical importance. No invariably applicable rule can be laid down, nor line of practice be adopted, since the character of the crops infested and the nature of the weeds themselves constantly change. Indeed, the plant grown as a valued crop to day may become the direct pest to morrow and the harvest of one locality be the bane of another.

A weed is really any plant growing out of place; that is, where not intended or desired. Timothy becomes a weed in the corn field and cotton is a weed in the cane patch. Weeds grow that man may exterminate them, and their extermination is his most constant occupation.

The methods adopted for this extermination are universal. Cultivation is their death, the only variation being in the method or implements used in performing the deed. Is the adage that an ounce of prevention is worth a pound of cure," more applicable than in the attitude of farmers toward weeds? It is to some of the possibilities of prevention that I propose to call attention.

Preventing the presence of weeds rather than the killing of weeds, should be the aim of the farmer. And here it seems important to observe a too seldom considered truth that of the recognized weed pests of our country fully 80 per cent. are of European origin and are now among our imported luxuries. In light of this fact general restrictive measures would seem to be a crying demand. In view of the recent history with the "Russian Cactus" which has laid whole counties in the West waste, from an importation in immigrant bedding scarcely a decade ago, legislative precautions might even now prove timely.

The advantages of prevention over extermination seem to be frequently confused under the supposition that the killing of the weeds on the soil has some of the advantages of the turning under of a green crop. Indeed, this practice was for a time advocated by one of the most assiduous of our experimenters. It must be remembered, however, that among the common weeds of the country there is hardly a leguminous plant. It therefore follows that the fertilizing material contained in a crop of weeds is essentially all of soil origin and the cultivation of this crop simply returns to the soil the plant food originally taken from the soil and in a far less soluble and available form than it previously held, inasmuch as decomposition in the soil must intervene before the material of the weeds can again become available. The presence of weeds in cultivated fields is therefore without redeeming feature.

Invisible and often almost inexplicable as the origin of a given weed in any locality may be, we know that spontaneous generation is out of the question and that wherever a weed appears its seed must have preceded it. The seed therefore is the vulnerable place of attack, and any means by which the presence or formation of weed seed may be restricted is the surest and most effective way for reducing the mischief of the weed itself. The most effective time for cultivating the weed infested ground is after the seed has sprouted, but before the resulting plant has secured a strong hold on the soil. A few repetitions of this course will, by destroying the successive sproutings, suffice to exterminate the weed crop of any given season.

The source of the weed seed in any given field is of vital importance in supplying the basis for action by enabling us to prevent a re occurrence of the condition resulting in the presence of the pest.

Unquestionobly the manure used is responsible for a larger part of our weed enemies than any other single cause. Any farmer who will once observe the difference in the prevalence of weeds where crops are grown with and without manure side by side will easily convince himself of the truth of this assertion. I have repeatedly found the cost of cultivation to be more than doubled by the use of manure as a fertilizer and with a certain crop, requiring much hand weeding, like onions, the use of manure is certain to prove disastrous.

The obvious deductions from these facts are first, that commercial forms of nitrogen, potash and phosphoric acid should be substituted for manure where purchased material is to be utilized in feeding the crop. Second, that for garden and close-grown crops only thoroughly decomposed manure should be used, the heat of rotting inevitably destroying a large part of the weed seed invariably present. This decomposition of the manure necessarily occurs at the expense of fertilizing material. This loss may be largely prevented by the use of a chemical absorbent in the stables and yards. Gypsum is well adapted to the purpose, but kainit is equally effective as an absorbent and possesses the added advantage of furnishing needed potash and thus correcting a deficiency in the manure and rendering it a better balanced plant food, and thus more economical. Another advantage of this course is based on a fact with which every practical farmer is personally familiar. Weeds grow rankest where nitrogenous plant food is present in excess. They thus secure a start or hold difficult to later overcome. If this excess of nitrogenous fertilizer is prevented, not only is the crop grown, better fed, but the extermination of the weeds is facilitated.

H. R. STOCKBRIDGE.

A Wisconsin local paper says: A friend appeals to us to suggest something for the fly-tormented milkers. It's no use, my veteran friend, we've tried it. Once, when a boy, we thought we would fix a frisky heifer, and so tied her tail to our boot strap. The heifer gave two or three jerks, and then got right up in meetin' and lit out. We—well, we managed to keep up with the heifer, with the assistance of the tail, but there was altogether too much confusion about it to make it interesting. We are certain it was no time for reading the Scriptures, or family worship. It is much safer to let a cow switch her tail, than to switch a boy.

THE DAIRY.

ONE HUNDRED HINTS ON DAIRYING.

By the Late Col. T. D. Curtis.

No, 1.

Correspondence of the Progressive Farmer.

SELECTION AND BREEDING.

1. Decide on your line of dairying, if not already decided. Butter, cheese or milk for market.

2. If you choose butter making, see that your cows give milk rich in butter fat, and that the fat is in large globules, so that it will readily separate from the milk.

3. If you choose cheese making or milk for market, see that the butter fat is in small globules, so that it will not readily separate from the milk.

4. Test every cow, and do not be content with your herd until it averages 300 pounds of butter or 750 pounds of cheese yearly per cow.

5. Be sure to select a male that is from a family better in your line of dairying than your herd. This is a guarantee of improvement in the offspring.

6. When your dairy is up to your ideal standard, be careful not to use a male inferior to your herd lest your breed go down instead of up.

7. Stick to the line of dairying and the breed of cow which you begin with, keeping the blood pure. Mixing breeds promiscuously works badly.

CARE AND FEED.

8. Remember that good care and feed are as essential as selection and breeding.

9. See that the food given to your cows is of the best quality and in the best condition for digestion. This is very important.

10. Be careful that the ration fed to your cows has a proper balance of elements, approximating one part of nitrogenous food to five or six parts of carbonaceous. The nitrogenous foods are also known as "albuminoids," and the carbonaceous as "carbohydrates."

11. Mixed pasture grasses, including clover, make a well balanced summer ration; but a little dry food is relished exceedingly, and is beneficial. Some of the best dairymen not only feed hay, but corn meal and bran, or some other form of grain all summer, to advantage.

12 Be sure to have some soiling crop to eke out the feed during the dry season, and by no means permit a shrinkage of the flow of milk because of lack of food. It cannot be fully regained.

13. A most important consideration in the ration is that of bulk. If too bulky, the animal has to eat too much to get sufficient nourishment and becomes uncomfortable. If not bulky enough, the animal will take in more nutritive material than it can digest, in order to produce the proper sense of fulness. This deranges the stomach and causes waste.

T. D. Curtis' "One hundred hints on Dairying" have for sometime been out of print. Before the author's death he gave the writer the privilege of re publishing them, which he intends sometime to do in book form. But not being at this time ready to do so, he has concluded to give them to the public in the above form. Future issues of this paper will contain remaining parts, till the entire one hundred hints have been published. The hints will be worth a year's subscription to the paper.

F. W. MOSELEY.

Clinton, Iowa.

A NEW YORK MILK TRUST.

New York dispatches state that a gigantic milk trust is being formed in that city, with John D. Gilmore, a millionaire banker, as promoter. The plan is to form a corporation with a capital of $10,000,000, which every dealer must join. If anyone refuses, the old freeze out methods will be employed and his business will be ruined. When the combination is complete the price will be advanced. If only the farmers who produce the milk were bright enough, broad enough and steadfast enough to combine and hold to their combination, under wise leadership, how pale and sickly they could make such a trust look. But when such farmers are not enterprising enough to become good dairy students for their own private interest in the production of milk, they constitute a rich field for big trusts and combinations to thrive in.—Hoard's Dairyman.

Now that crops are being gathered in, don't forget to gather in your tools and farm implements. To gather in your crops and leave your tools in the field is like "saving at the spigot and wasting at the bung."