

THE RALEIGH STAR AND NORTH CAROLINA GAZETTE.

THOS. J. LEMAY, Editor & Proprietor.

"North Carolina—Powerful in intellectual, moral and physical resources the land of our sires and home of our affections."

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NO. 25.



AGRICULTURAL.

A GOOD COMPOST.

Those having salt marshes and marl on their estates cannot do better than to seize every opportunity to form marsh mud and marl into composts for their next year's corn crop. Three hundred bushels of marl, corn crop. Three hundred bushels of marl, mixed with 10 double horse cart loads of salt marsh mud per acre, if formed in a pie, and left to decompose, assimilate together, and be meliorated by the effects of the summer's sun and winter's frosts will form, next spring a reliable manure for the corn crop, which should be followed by wheat, and that by clover. In thus preparing the material for composts a hand and team could be very profitably employed from now until the period of frost. Such a compost, we feel very certain, would prove infinitely more permanent in its effects than twice the quantity of barn yard manure, and would ensure to the soil any desirable degree of fertility.

REPORTS.

Montgomery County (Md.) Agricultural Society, September, 1848.

The committee on the Improvement of Farms beg leave to report, that after particular examination of the certificates presented to them from several gentlemen they award to Mr. BENJAMIN HALLOWELL, for the greatest improvement in five acres of land, a Silver Goblet of the value of ten dollars.

Also to Mr EDWARD STABLER for the second greatest improvement in ten acres of land, a Silver Goblet, of the value of five dollars.

Together with this report we return the certificates of the above named gentlemen, to be disposed of as the Society may see fit though we would suggest to have them published, that others may see what can be done on worn out land.

HORATIO TRUNDLE,
JOS. F. BALKY.

A Lot of Five Acres, barren Rockland, (poor old field,) clay soil, stiff and stony.

In 1843, latter part of winter and early in the spring it was ploughed and limed, 50 bushels per acre; in May 10 bushels of bone per acre was applied, and the field planted in corn, putting poudrrette in the hill at the rate of one and a half barrels per acre. In September the corn was cut and hauled off and the land dressed one acre with guano, one with poudrrette, and the rest with bone, at a cost of \$8 per acre on the farm and in wheat and timothy.

Cost of Manures.

250 bushels of Lime,	\$62 50
50 bushels bone, on the farm,	25 00
7 1/2 barrels poudrrette, on farm,	15 00
Manure for wheat,	40 00
Plaster on grass,	2 25
Cost of putting in and cutting corn,	18 57
Putting in wheat,	11 25
Seed wheat, 10 bushels,	10 00
	\$184 75

Crop.

Corn, 250 bushels,	\$125 00
Wheat, 100 bushels,	112 32
Three crops of grass, 20 tons,	200 00
Clover seed, 71-2 bushels,	37 50
	\$474 35

The land now appears made, having on it a very large second crop of clover and timothy both in head.

RICHARD S. KIRK, for
BENJAMIN HALLOWELL,

To the Committee to award the premium of the Agricultural Society of Montgomery County, for the greatest improvement in Land—reference being had to the cost, kind of manures employed, &c. &c.

The undersigned, in entering the lists of competition for the premium to be awarded by our Agricultural Society, and in persuading me of the "terms and conditions," will state that the character of the land referred to is a stiff, tenacious clay subsoil; and at the time of improving and perhaps for fifty years preceding the field alluded to or the greater portion of it at least, was reduced to a state of almost absolute sterility; not very good original, "the old Maryland plan" of shallow tillage or no manure no grass seed, and constant washing had nearly divested it of the little soil it once possessed.

When it came into my possession, I made two unsuccessful attempts to improve it by cultivation, and sowing grass seed, and the liberal use of plaster. It produced little else than running briars and poverty grass.

About one fourth of the field was of better quality, being lower and receiving the washing of the surrounding grounds and although there was no running water on the

surface, yet most of it was "wet and spongy" late in the spring, and produced but a scanty crop of very inferior grass.

Some nine years since, I determined to improve the field, cost what it might; and began by a thorough, under draining of the wet portion, by several hundred yards of deep narrow ditches—filling them to within eight inches of the surface with loose stone; then a course of leaves or straw to prevent the returned earth filling the interstices between the stones.

It was broken up in the fall and early in the winter, from seven to nine inches much deeper than it was ever ploughed before. The following spring applied about sixty bushels of caustic lime to the acre and plastered in corn. On about three-quarters of the field the crop did not more than pay for the ploughing, if so much. Oats followed the ensuing spring with a liberal supply of grass seed as it was considered useless to attempt a crop of wheat. Much of the oats was too short to harvest and most of the grass seed either failed to vegetate or "starved out."

In six or seven years the field again came into rotation was broken up quite as deep as before; the same amount of caustic lime (i. e. in an unclashed state) applied full incorporation with the soil & again planted in corn. This crop though considerably injured by the bud worm was good; not measured, but estimated at not less than six to seven barrels to the acre—the former crop not yielding as many bushels.

Oats again followed the corn on about two thirds of the field with five to six bushels of ground bones to the acre and lodging over the greater portion of the field. Then followed a wheat crop on the whole manured as far as could be, from the barn yard and on the balance, some 80 to 100 pounds of guano to the acre—sowing timothy seed with the wheat and clover seed the spring following.

The average yield of wheat, to the acre, was rather over the thirty three bushels. This result is ascertained with certainty; for every field and lot on the farm is accurately surveyed and plotted and this portion of the crop was threshed and measured by itself.

Most of the crop on this field (about ten acres with the enclosure and eight in wheat) suffered considerably from drought early last spring; the harvesting was badly done, owing to its fallen and tangled state from a storm, about the time of ripening; but I have no doubt several contiguous acres might have been selected on the lowest ground, that would have yielded over forty bushels to the acre. This field was gleaned with the horse rake and hogs but sufficient seed remained to produce a volunteer crop of wheat with the grass this season, that was generally estimated by those who saw it as well worth harvesting.

This season, this field yielded the heaviest crop of grass I ever harvested; and even on what was originally the poorest part, has now a luxuriant crop of second growth clover intended for seed that is lodging over the whole extent.

We will estimate the "profit and loss," by figures, for a single acre:

By estimated increase of corn crop solely owing to lime, at least 5 bbls at \$2.

By estimated increase of oat crop, at least 20 bushels, at 40 cts.

By estimated increase of grass crop, at least one ton,

By estimated value clover seed, at least 1-2 bushels for there would have been none without the lime, at \$4.

Thirty three bushels of wheat, average prices old at last spring \$1.31

Total, Dr \$79 23

To 60 bushels of lime cost at kiln 16 cents, \$9 60

To 7 years interest, tho' it began to pay in pasture in less time, 4 03

To 60 bushels of lime, cost at kiln 12 cents, 7 50

To three years interest, 1 35

To 6 bush. ground bones, at 50 cents, 3 00

To 100 pounds guano, 2 00

Total, Dr \$27 48

Making in round numbers, fifty dollars an acre in favor of the improvement.

In the view of some perhaps, there should be a charge for hauling and spreading the lime; also, for harvesting the increased crops. It is believed the increased product in straw and fodder more than repays the latter; while the former and also the expense of draining is fully compensated in the greatly increased pasture; to say nothing in the account of the state of the land itself, which is radically and permanently improved.

Previous to the application of lime, plaster was liberally used, but with no visible effect whatever. Now its action is as

marked on the same land as I have ever seen any where; and with the exercise of a very ordinary degree of judgement the improvement may be continued and increased with but very little additional expense for many years to come.

In connexion with the above statement I would remark, incidentally that it is probable a fair crop of wheat might have been raised on this land by the aid of guano alone and at less expense than has been incurred; but according to all the experience I have had, and I have used it liberally the land would have derived no material benefit.

On land which was limed eighteen or twenty years ago and equally poor, (purposely kept with out other manure since to test its durability) it has rendered it very productive comparatively speaking, to this day. Whilst on a portion of the same with 300 lbs of guano to the acre—half in 1845 and the balance in 1846—and equally cropped, no one could point, by the growth of the clover—uniformly good on the whole, and equally limed—where the guano had and where it had not been used. With me in two, or at most, three years its effect is gone. The conclusion is that lime though it may be comparatively slow in action; and to say the least is on this description of soil ten times as durable as guano in its fertilizing effects; how much longer remains to be seen and in the end is much the most economical where it can be obtained at a reasonable cost. Guano may generally be used to profit for a single crop and possibly may prove more durable in its effects on some kinds of soils than on others, but on all soils it is believed an advantage would result in mixing it with one fourth to one third its bulk of plaster to fix and retain the ammonia and to plough it in, instead of leaving it near the surface. Lime on the contrary losing nothing by atmospheric influence, should be kept near the surface; and is best applied as a top dressing (which guano never should be) a year or in advance of the cultivation to afford an opportunity for the winter frosts and rains to dissolve and bring it into more extended and speedy action.

Ground bones though not so immediate in their effects are much more durable than guano, and to be preferred, decided where the improvement of the land is a primary object. I would class them something like the following: Lime for the landlord; guano for the tenant, and ground bones for both; after each has fully availed himself of all his own resources, in the vegetable manures.

The annexed certificate is the only kind of collateral evidence I can now furnish; not having contemplated any thing of this kind at the time of harvesting the wheat last season or of determining, with precision, the product of hay this year.

EDWARD STABLER
Harwood, 8 mo 31st 1848.

I have examined the within statement of EDWARD STABLER, and from a knowledge of the land for upwards of thirty years having frequently in that time noticed the crops thereon and having particularly examined the crop of grass now on it have no doubt of the correctness of his statement; nor do I think it an over estimate that several acres together produced quite forty bushels of wheat to the acre.

Wm. P. PALMER.
Woodlawn, Aug. 31 1848.

RUTA BAGA.
About the 25th of June will be a good time to put in this excellent root; but the sowing of the seed should not be delayed beyond the 25th of July.

Preparation of the Ground.—The ground should be ploughed deeply; prior to which, however, where its improvement is looked to as a main object, it should be well manured, broadcast. The ploughing done, it should be harrowed thoroughly, so as to reduce the soil to a fine tilth, and then rolled. If manure is scarce, manuring in the ridges will answer, and, of course, require much less manure. It would be best to give the ground two ploughings. The ground being ready, make ridges, say 15 inches apart, 4 inches deep; put in the compost hereafter recommended, about 2 inches in depth; cover the compost with the soil thrown out in making the ridges; drill in the seed on the top of the ridges; rake them in lightly, and compress the earth with the back of the rake or with a hard roller.

Quantity of Seed per Acre.—Two pounds per acre is about the right quantity of seed.

Preparation of the Seed.—Soak the seed in fish oil, for at least 12 hours before drilling them in. When ready, drain off the oil, and mix the seed thoroughly with ashes or plaster, so as to separate and render them easy of being sown; then add 3 parts sand to one of seed, so as the better to ensure their being thinly distributed in the drills.

Culture.—When the plants first come up, go through your patch and sprinkle fish oil over them, taking care to have them dusted, at the same time, with either plaster or ashes. This operation must be repeated, early, for three or four successive mornings. When the plants begin to bottle, give the ground a dressing with the hoe; and if so thick as to impede their growth, thin them out a little. In a week or ten

days thereafter, give them a second stirring with the hoe, taking care, at this working, to thin out the plants so as to stand from 6 to 8 inches apart in the drills. In about two weeks from the second, give them a third stirring with the hoe. This, under ordinary circumstances, will answer to ensure a good crop; but, as the great object in the culture of this root is to keep the ground open and free from weeds, the cultivator must exercise his own judgment, in determining whether he give his ground another working or not.

Of the manure.—Well rotted stable or barn-yard manure is, probably, the best foundation for a compost; 6 loads of which, if mixed with 10 bushels of ashes, and 4 of ground bones, and 1 of plaster, will be sufficient for an acre and will not fail, the season being favorable, to ensure a heavy crop of roots. Where the cultivator may not have rotten manure, he may secure himself a good crop by making a compost of 10 bushels of ground bones, 10 bushels of ashes and 1 of plaster, or by drilling in 200 lbs. of guano and 1 bushel of plaster.

Of the Ground.—The soil in which this turnip most delights is a deep sandy loam, though it will grow well in any light, friable soil—the fresher, the better.

EFFECTS OF MUD ON GRASS LANDS.—Last season, Mr. David Choate, of Essex, Massachusetts, sent us, says the Boston Cultivator, some heads of grass, showing the effects of mud on the crop. At that time, no particulars were communicated; but since Mr. Choate has given the following: In the fall, meadow-mud was hauled, from low land, and laid in a heap on high dry land that yielded a very light crop. In a short time the heap was removed, leaving about an inch depth of mud, in consequence of which, a very stout crop of grass was produced the next season. The heads of herbage from the land thus manured by the mud are eight inches long and of a large size. This shows the very powerful effects of mere mud, which abounds in nearly every section of the country. Almost every farmer has on his farm a mud mine, more valuable in contributing to the happiness of himself and others, than a mine of gold.

* The herbage of the East is called timothy with us.—ED. A. FARMER.
From the Massachusetts Plowman.
CROWS USEFUL—SCARE CROWS USELESS.

Mr. Editor: I have long waited, but in vain for some one to defend the crow. It is my opinion that the crows are the cheapest help we can employ to rid our corn fields of insects.—Let the farmer take a look at his field at day break and he will perceive the crow making a meal of the corn worms, which at this moment are preparing to leave the upper side of the soil for the inner side.

Now to the point.—When the farmer is about to plant his corn, let him dissolve four table spoonsful of tar in one gallon of boiling water. When it stops boiling, turn in your corn, stir it two minutes, then drain off the water and stir in one pint of gypsum, then it is ready for planting.

The above are proportions for six quarts of corn. Seed corn, thus prepared, is against the taste of the feathered tribe—no crow or other fowl will eat it, and the field, without scarecrows is soon rid of insects. No spare stalks remain for beans, but all are full of stalks, and of course, full of ears. I have had experience of this method for thirty years and have never known it to fail when properly prepared.

Now brother farmers, one and all, please make one experiment, and send the result to the paper, that we may compare notes, and know the truth. Mr. Editor, please try this on one acre of corn—dispense with all scare-crows and I will stand bonds for the good behaviour of the crow for one year.

ROBERT MANSFIELD.
West Needham, March, 1840.

LATE CROPS.—As the corn and small grain crops are frequently injured or greatly reduced in quantity by contingencies against which no human prudence or foresight can effectually provide, it is always well for the farmer to have at his command the most ample means of substituting, when necessary, such late crops (as may afford the best possible substitute for them when destroyed by blight drought, or any other cause.

When corn has been cut off by worms at a period too late to admit of replanting, the soil should be planted in potatoes, or turnips, both which will do well when got in late. The potato is frequently planted in the New England States as late as the fourth of July; and when the ground has been properly prepared, if the season be tolerable favourable, there is but little danger of a failure, although the crop is generally less perfect, and of much less weight than when planted in May or June. If grass land be broken up towards the close of the latter month, when the grass is near its maturity, the furrow slice laid fairly over, and carefully rolled, potatoes, planted in the usual manner, with a handful of gypsum and lime, or house-ashes in each hill, will almost always succeed, and produce, if not so abundantly as earlier planted potatoes, at least as fair, if not a fairer crop.

Planted in corn-lands; at the last hoeing potatoes require neither weeding nor cultivation of any kind.—The soil being generally mellow rich and good tilth, the germination is rapid, and the subsequent development of the tops and roots far more vigorous than in situations expressly prepared for this crop. It has also been noticed by many observing culturists that the potato, when occupying spots that have been vacated among corn plants by the ravages of the cut-worm, or other similar casualities, is rarely injured by "rust," and when indeed, this disease does attack it in such situations, its appearance is much later and its effects far less fatal than under other circumstance. We can not too forcibly impress upon the minds of our agricultural friends the necessity of providing a liberal supply of roots for their stock during winter. To confine animals exclusively to a dry feed, at a season when water is often with difficulty obtained, cannot result otherwise than detrimentally, as it induces disease, and besides, renders the animals restless and unamiable even under the most gentle treatment. This is a matter of essential importance, and one to which we hope our friends generally will at once attend.

ON THE APPLICATION OF GUANO.

From the American Farmer.

To THE EDITOR:—I have noticed, in the Farmer for this month, your answer to a Petersburg, Va. inquirer, in regard to the best method of applying guano, in the hill, to a corn crop. I cannot but agree with you in your opinion, that the application of manure to the hill, especially the coarse manure of farm yards, is too partial to be permanent in effect; nor do I think it will be practiced generally by farmers of experience, who have an interest in the permanent improvement of their lands. In relation to guano, however, without presuming to dissent from one of your information in such matters, I will merely state facts that have come under my observation—my inferences from those facts—and leave you to judge whether I am right or wrong in concluding that the most profitable method of applying guano to a corn crop, is in the hill.

I used last year, three tons of Peruvian guano in the corn crop, and 2 ton of Peruvian, with three tons of Chilean, in corn land, seeded with wheat last fall. The whole broadcast, at the rate of 250 lbs. to the acre, with the exception of two bushels or 120 lbs., reserved for an experiment. The land lay in four foot ridges, and was so poor that even poverty grass was scarce on it. The guano was sown with a swinging, low cast, the sower walking in the furrows between the ridges; so that the greater part of it, necessarily, fell in the furrows. One at a half bushels of plaster was then sown on the guano, and followed immediately by two plows, lifting over the old furrows, and plowing out the ridges. By this method, all the guano, with the exception of that on four lists, plowed previous to sowing, was turned under. The four rows listed before sowing were plowed out after sowing—turning under all the manure but that which fell in the list. I wish you to remark particularly that two-thirds of the guano on these four rows was turned under—the lists only having it on the surface.

The land was crossed deep by rows four feet apart, and planted with corn rolled in plaster, and covered by a one horse harrow, running on the ridge or list, to the last 5-600 hills, in which the two bushels of reserved guano, mixed with one of plaster, was dropped, at the rate of a handful to four hills, (such a handful as would be taken of wheat to sow at the rate of two bushels to the acre,) leaving one peck of the mixture unapplied. A hoeful of earth was then thrown in each hill, separating the guano from the corn, which was planted in the manner already stated. The whole field was then rolled. The cultivation was two harrowings, two plowings, and a leveling with flukes in July. The increase over the last crop, on the same land, was from three to four barrels to the acre, with a difference scarcely perceptible, either in stock or ear, between the corn on the land guanoed in the hill, and that on the land broadcast at the rate of 350 lbs. per acre. The corn on the four rows guanoed after the lists were plowed, was the meekest trifling better than unimproved land corn, growing along side of it.

I believe it may fairly be inferred from these facts, that, as 50 lbs. in the hill, per acre, produced the same effect, almost, as 350 lbs. broadcast, nearly 300 lbs. of the broadcast was thrown away as far as the corn crop was concerned; and as the wheat plowed in with 150 lbs. of guano, broadcast, last fall, has awaked from its winter sleep, and appears more green and flourishing than wheat on the land to which 350 lbs. was applied last spring, then 150 lbs. at least of the spring's application, is lost, to the wheat. Again, as 50 lbs. in the hill, had nearly the effect of 350 lbs. broadcast, and as 350 lbs. broadcast and no part turned under the lists where the corn stood, had almost no effect, I may fairly conclude that the way to secure the greatest amount of benefit to a corn crop, and profit to the plantation, from guano, is to place it, in small quantities, directly under the plant, where it can do its work without being disturbed by plow, fluke or harrow.

You can, sir, make what use of this communication you may judge proper. I have to grieve from a worn out soil every red cent I expend in its improvement; and I wish, most sincerely, some one had given me the information relating to this manure, which I have now, at the cost of \$100 worth of guano, thrown away. That amount, applied to my wheat, would have doubled my chance for a crop at the coming harvest. Very respectfully,
March, 1849. A KENT FARMER.

REMARKS.—The facts developed in the above experiments are deeply interesting, and we regret that a want of room compels us to delay an exposition of our views in regard to the needless waste of fertilizers applied to cultivated fields; and in reference to an equally needless loss of the elements of crops which nature has furnished in soils.

THE AMERICAN FARMER.

The 5th volume of the new series will commence on the 1st of July, 1846. It is issued every month, each No. containing 32 large octavo pages, and is subject to newspaper postage only, viz: 1 cent on each number sent to any part of the State, or anywhere within 100 miles, or 1 cent if out of the State, and over 100 miles.—At no period of its existence has the "Farmer" enjoyed a more wide spread popularity than at present, and in addition to the valuable papers elicited by the State Agricultural Society of Maryland, the publisher has secured the aid of many of the most eminent agriculturists of the country, as contributors to its pages. During the past year, a handsome amount was expended in premiums for the best essays on important subjects, and \$100 is now offered for other prize essays, which will be published in the forthcoming volume. The Maryland State Agricultural Society, at its meeting in May, proposed to raise a fund of \$100, to be expended for three pieces of silver plate, one of the value of \$50, to be presented at the next Annual Fair of the Society, to be held in October next, to any person who shall obtain largest list of new subscribers to the "Farmer" the 2d of the value of \$30, for the next—and the 3d, of \$20, for the third largest list, besides sundry other offers which have been added by the publisher, in agricultural works.

Terms of the American Farmer.—\$1 13 do for \$10—30 do for \$20. Advs: SAML SANDS, Publisher, Maryland State Agr. Society's Hall, 128 Baltimorestreet, Baltimore, Md.

PROFESSOR EMMON'S ADDRESS.

We have trespassed a little on the limited space in our columns to make room for the able and interesting address of Prof. Emon's before the N. Y. State Agricultural Society, for a copy of which we are indebted to its Secretary, B. P. Johnson, Esq. We learn that the second large quarto volume upon New York Soils, Agriculture, Fruit, &c. from the pen and laboratory of Mr. Emon, will soon be ready for delivery. Rural Science is greatly indebted to the long continued and critical researches of this gentleman; and to the liberality of the Empire State, which has expended some \$400,000 on its natural History within the last twelve years.

CUTTING AND CURING CLOVER.

Clover should be cut as soon as it comes into blossom; and after laying in the swath until it wilts, it should be put into cocks, to complete the curing. In stacking it away, a peck of salt should be sprinkled over each ton of the hay, as it is being formed into stack. If thus cured, and this precaution of salting be observed, the hay will be greener, more fragrant, and less liable to lose its leaves on being subsequently handled, in being fed out to the stock, and, without, will be much more grateful to their palates. If the further precaution were taken to stack, layer and layer about, straw with the clover hay, the former would imbibe the fragrance of the latter, and be as acceptable, if not as nutritious, to the cattle as the clover hay itself. This might occasion, a little extra trouble, but when one is securing a winter supply of provender for his stock, that consideration should not be permitted to weigh a grain in the balance; for, independent of the pecuniary benefit which is sure to ensue to the careful husbandman who may encounter this additional trouble, that higher and more ennobling sentiment, arising from the liberality of the thing, should, and will, more than compensate him, as here is nothing which brings a richer reward, than virtuous breast than the consciousness of its possessor having performed his whole duty.

DRAINING.

All wet lands should be drained. When deprived of their excess of water, the capacity of such lands, for production, will be increased fully one-third; the products will be improved in quality; the lands will be much easier tilled, while the health of the estate will be greatly meliorated.

Contract your desires, if you wish for independence.
Be partial to no one, without a cause.