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The Agriculturist.

A WEEKLY JOURNAL DEVOTED TO AGRICULTURE, LITERATURE, AND NEWS.

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Agriculture.

For the 'Agriculturist.' A King's County farmer writes us as follows:

'Farming! what should the farmer write about when feeling so disposed, but about farming! If he has not got farming on the brain, he ought to; and if he does not grow wheat he ought to; because he thereby obtains a special benefit from the soil, which he could not otherwise secure from growing oats and buckwheat, as these have only surface feeding roots.'

It must be encouraging to young farmers to think that now-a-days they can raise their own bread, not being necessitated to buy it like a dependant mechanic, but like a real farmer, raise it for sale to supply the wants of those who need it.

There are more turnips lost by overwarm than by overcool storage. Yellow turnips are of a much warmer nature than potatoes; and are by horsemen considered better feed than carrots. For many horses standing idle, a bushel of turnips is as good as a bushel of oats.

FIELD MEETINGS.

The farmers of New England have a custom of holding, what are called 'field meetings.' We do not know whether it is an universal custom there, it is, at least, in vogue in Massachusetts. The members of a farmer's club, will, on invitation, during the harvesting season, visit the farm of one of their number, and walk over the fields and inspect and criticise the growing crops, and the methods of culture pursued.

some particular system of culture, and from whom something worth knowing is sure to be gained. The farm is not, probably extensive, fifty acres at most, nor one under the highest scientific cultivation, but one on which the owner with perhaps but moderate means, has persistently carried out with intelligence and industry, his own methods of cultivation, and with excellent results.

The visitors and the neighbours take a walk over the fields, and watch the operations that may be going on, and examine the state of the crops. The host who accompanies them stands ready to answer all questions. His note book is at the disposal of those who require exact information. Questions are asked as to the sort and quantities of manures, and artificial fertilizers used per acre, and as to the cost of producing an acre of grain, corn, oats or barley.

On such a farm wheat is likely, but, as yet, an experimental crop. Leaving the fields, the company visit the vegetable garden, and examine the state of the cabbages, onions, squashes, beets, potatoes, &c. Questions and answers pass as to the best ways of killing the pests, the maggots, and vine borers that destroy the squashes, and Colorado beetles and worms that play the mischief with the potatoes and cabbages.

The merry-making and bees "which used to be" in the olden time so frequent on the farm have fallen greatly into disuse. The "field meetings," where business and quiet pleasure are combined, seem to suit well the graver and more anxious spirit of these modern days. Might not the custom of holding them be profitably introduced among the members of the different agricultural societies of the Province?

WHENCE PLANTS OBTAIN THEIR SUPPLIES OF FOOD.

Plants get part of their food from the air, through their leaves and other green parts, the rest from the soil through their roots. This was proven by a vast amount of laborious and accurate experimenting, carried on for the most part in European experiment stations, for the purpose of discovering the laws of plant nutrition and growth.

Water.—Plants have the power of absorbing water through their leaves, but the bulk of their supply comes, and must come, from the atmosphere to the soil, and thence to the plant through the roots.

Organic matter.—Carbon, oxygen, and hydrogen.—The carbon of plants is taken from the atmosphere. The leaves absorb carbonic acid, and with the aid of light wrests its carbon oxygen asunder, setting oxygen free, and thus purifying the air, while they retain the carbon. Carbon unites with hydrogen, oxygen, and nitrogen, to make up the various tissues of the plant, the root, stem, leaf, and seed, the wood and bark, the gluten, starch, sugar, and so on.

Our cultivated plants get the bulk of their nitrogen from the soil, through their roots. Many years of labor of the best investigators, and many thousands of dollars, have been devoted to the study of the sources of the nitrogen of plant food. The theory that plants avail themselves of the free nitrogen of the air, of which there are thousands of tons over every farm, must be regarded as wrong. The theory that plants in general, and the large-leaved plants in particular, as clover, turnips, corn, etc., obtain a good deal of combined nitrogen (ammonia and nitrates) from the air by their leaves, is hardly tenable. The gain of nitrogen from this source seems to be very small indeed.

FARM LIFE IN NEW ENGLAND.

An article in Scribner's Monthly Magazine contrasts 'Farm Life in New England' in the present day with what it was in the past, and in some respects is answers as well for New Brunswick as for Maine or Massachusetts. In its last issue, the Montreal Witness gives a review of a portion of it, which we reproduce, taking a few liberties with it.

Spring has come up flow and sugar-making slacken. When neighbors meet, the question is, 'Have you heard the frogs?' Only one 'run' of sap after the frogs' pop is the traditional rule. The quick transition from winter to spring is one of the most marked peculiarities of the New England and Canadian year. It behaves quickly its pace, for the stay of spring will be brief. It will depart hurriedly as it came.

Formerly there came a little lull in work, between planting and hoeing, during which it was considered right and proper to take a holiday. The boys and hired men would go a fishing; the older folks would go a visiting. Modern improved agriculture has annihilated this interval of leisure.

MIXED FOOD FOR STOCK.

A correspondent of the Country Gentleman writes as follows on this subject:

Cattle, in a state of nature, or if left free to their own choice, will feed on a variety of herbage. It is well, therefore, for farmers and stock raisers to take hints from the natural taste of the different animals of the farm and provide accordingly. Very many, I am pleased to say, do thus provide a variety of food for stock confined to the stable or yard; and where this is practiced, thrift, health and comfort of the stock is general, to the advantage of the owner.

The chewing of hay or straw makes quite a saving of waste in more than one way. The waste can be seen by looking from the feed box and soiling and trampling under foot, is saved, while time and strength are saved in mastication, and more time is had for digestion and assimilation. Cooking also develops the nutritive matter of the feed, saving the animal system this labor which is more economically expended in ordinary work, or other productions.

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In adopting a mixed food much of the coarser products of the farm can be worked up, which now go directly to the manure heap. Scarcely any of the vegetable products of the farm need be wasted till they have first contributed all the nutrient they contain to the support of animal life.

The disease of 'bees,' formerly so common for logging, barn-raising, sheep shearing, and other objects, is one of the characteristics of the present as compared with the past of New England farm life. It is the same in Canada. These jolly gatherings, though by many years now old-fashioned, have not fallen into disuse and decay here. New England favors is poorly supplied by the insipid societies and about-noble surprise parties that are now in vogue.

It is worthy a moment's reflection how much the tendency of things has been of late years to increase the isolation of farmers and their families. Formerly, hay-making and harvest were occasions for comparatively social gatherings. What with change of work, and the engagement of spare help in the neighborhood, it was for the most part, acquaintances who came together in force at such times. Machinery has done away with all that. The mow or the raper is used to cut so much hay or grain as can be taken care of by the hands regularly employed on the farm.

of neighbors together, and the latter of the machine, the whirling about of the straw, and the clouds of dust are not favorable to any intercourse of sociability with the labor. May not the loneliness of life on the farm have something to do with the disregard for it on the part of young people, which is one of the evil signs of the times that are passing over us?

We have not space to notice the tasks that intervened between sowing and the close of the season. Suffice it to say, there are few changes except those which have been already referred to. After having harvested and gathered in the root crops, any remaining then comes the final scene in this agricultural panorama.

OVER PRODUCTION.

Many are complaining of over production, and crying out against all kinds of labor-saving machinery as the cause of the present stagnation of business, and some are so short sighted as to believe that labor can never again be so fully employed until the machinery, to which they ascribe their ills, is put out of existence.

It is not that the business of turnip-culture begins in earnest. The land must have its final ploughing and harrowing. All things must be put in readiness for sowing. The first advantage may be taken of the first favorable weather about the middle of June. It will be seen in the course of this outline of the farmer's year, that the course of events has abolished nearly all the holidays and merry-makings formerly indulged in by the agricultural community. During the winter, the 'path-spell' is referred to, 'all hands' to 'the performance of the farm' termed by stretch of courtesy road-mending.

It is hardly possible to find man or woman or child that has enough of everything. The great mass of the people would gladly double their consumption if they could. Very many would gladly consume more food, and most people who have food enough would be glad to improve its quantity.

There is hardly one person in a hundred who would not double his consumption of clothing, and more than double his supply of furniture and articles of personal use and adornment, such as watches and jewelry, if he could afford to do so. There are very few people who would not be glad to spend more than twice as much as they do in building dwellings, and improving their surroundings. If it were possible for once to fully satisfy the wants of all men, new wants would arise, impelling to further industry.

The real trouble is, briefly stated, that things are not produced in due proportion. Relatively too much of some things and too little of other things is produced. The result is that exchanges are clogged, and production is arrested. It is because production is arrested, that men who depend wholly upon their personal efforts cannot find employment at good wages. Every man and woman active could work early and late, Sundays as well as week days, without 'gorging' the markets, if only he or she knew exactly what to produce.

PEAT OR MUCK AS A FERTILIZING AGENT.

We have been very much interested in the essay on muck and peat as fertilizing agents by Mr. H. Weld Fuller, which we find in Part I of the Transactions of the Massachusetts Horticultural Society, just at hand; because it is of itself timely, and because it has formed the subject of recent thoughts of our own, of which we made a brief article in our last week's issue.

Mr. Fuller says that muck consists mostly of decayed and decaying vegetable matter, with some earthy and mineral admixture, and is nearly in the state of vegetable mould, or 'humus' sometimes called 'genie.' The value of this muck depends very much on its position. If it has been continually subject to drainage and leaching, much of its virtue may have run off and little remain.

These manures not only tend to modify the mechanical texture of the soil, but they furnish carbonic acid and ammonia, or nitric acid, and the earthy and saline compounds required by plants. They assist in the decomposition of the vegetable matter, while the absorbing muck seizes and retains all the volatile parts, one-half or two-thirds of which might otherwise escape. It has been estimated that one cord of animal manure, properly composted with muck, will make four times its original value in good manure.

Ammonia is the natural food of plants, the best manure is that which will produce and retain the greatest amount of nitrogen, which is the base and principal ingredient of ammonia. If nitrogen is furnished in the solids the atmosphere will supply the hydrogen needed to form the ammonia. Hence the amount of nitrogen it can furnish, mostly determines the value of a manure.

The humus of peat is continually decaying, and is thus continually forming carbonic acid; it is also taking up nitrogen from the air and converting into nitric acid and ammonia. It gives warmth and porosity to the soil, and supplies it with soluble materials; while the insoluble earths are consumed by the acids, and thereby adapted to vegetation.

Dr. Dana says that one cord of fresh muck will neutralize one hundred pounds of soda ash; and that one cord of barnyard manure will decompose from three to six cords of peat. One dead horse will covered with peat, will convert fifteen of twenty tons of peat into a manure equal to the average from the stable; for it will separate nearly all its nitrogen from the other constituents, and hold it in a heap. He thinks, also, that the salt contained in one cord of peat are equal to the droppings of a cow for three months; and, by analysis, they are found to have the same chemical qualities, excepting that there is less acconing and odor in the peat or muck.

In his concluding summary on the valuable properties of peat or muck Mr. Fuller says: 'Decomposed with animal manures it is undoubtedly an admirable manure; especially for high lands, or sandy, gravelly, or loamy soils. In fact it is good on any soil. It is valuable as a great retainer and feeder of these; it is valuable as a constant collector and remover of supplies, and as a great assiduous of plant food.'

Anything about dog days is appropriate now; an exchange says: 'Dog days were so named because the season of greatest heat in summer in the latitude of the Mediterranean, nearly correspond with that in which the dog star rose at the same time with the sun. To this conjunction antiquity ascribed a malignant influence. The precise time when the dog star rises with the sun is very indefinite. It does not now occur until the 10th of August, when the greatest heat of summer is over. Dog days end Sept. 5th.'

PIGS FOR BREEDERS, AND PIGS FOR PORK.

Pigs designed for breeding purposes require a different treatment from those intended to be converted into pork at an early age. In the latter case, the most rapid forcing is the most economical method of treatment, while in the former, a steady, healthy growth is all that should be aimed at. As remarked in a former article in these columns, pork can be made more rapidly and cheaply, with any of our improved breeds of hogs, during the first ten months of the pig's life, than at any subsequent period; but this implies higher feeding than is compatible with a healthy development of the vital organs, and of the bony structure.

Such a course of feeding as overloads the pig with fat, or forces him to an unnatural growth, is quite likely to result in loss of the reproductive powers. Great disappointment has often resulted from the purchase of unnaturally forced pigs at fairs by inexperienced breeders. The writer himself has bought his knowledge dearly—having on several occasions paid extravagant prices for premium pigs, and found them utterly sterile; and long since adopted the practice of requiring a special guarantee when purchasing one that had been 'fitted for the fair.'

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This easy process affords means for exercise again for the birds that are limited to contracted space. A great number of worms, grubs, etc. are thus brought to the surface, which the hens and chicks will devour greedily, and they will search for these vigorously.

This method, if followed up three or four times a month, will clean the premises under foot, and render the ground healthier for the stock to wander over. Before the earth is thus loosened and mellow, scatter whole grain over it—oats, barley or whole wheat. And in this way you may keep the strived up fowls busy, affords them needed exercise, purify the earth under their feet, and prevent many a viciously inclined hen from acquiring the troublesome habit of plucking the feathers from her more docile companions' necks.—Poultry Yard.

All meat-producing animals should be killed when they are in the coolest state, or when respiration is the least active. Their flesh will then keep much longer fresh, and be more beautiful, sweet and healthful. When killed in a heated condition, or immediately after a hard drive, the flesh will take longer to cool through, spoil sooner, while the flesh and fat will have a dark, feverish look, caused by being full of blood, and hence will not be so inviting in appearance, or so healthy as food.

RAISING POULTRY FOR THE MARKET.

In an article on poultry the Philadelphia Times says: As a general rule we do not think farmers pay sufficient attention to the production of poultry for sale. Carefully kept accounts will demonstrate that one pound of poultry can be produced for about half the cost of the same weight of beef or pork, and always meet with a ready market. Another advantage is that it can be attended to quite well, if not better, by women and children than by men thus economizing the labor of the whole family, and directing it into the production of profit for the general purse.

Try the experiment of allowing the children, if large enough, to take care of the poultry for a share of the products, either in eggs on in dressed poultry. Charge them with all the food consumed and credit them with all the eggs or flesh consumed by the family, and note your percentages in the speculation, and the benefit it has been to them. The Maryland Farmer puts it in this way: 'If farmers who think poultry does not pay, would give their feathered stock to their sons or daughters, with permission to enjoy and own any profit that might accrue from them, they would soon be convinced that there is something in it.' There certainly is no more health promoting exercise that affords by caring for, or having the management of a flock of poultry, and if the flock is any of the pure breeds—there is in addition to the exhilarating influence, an enthusiasm that causes what might otherwise be considered a task to become a pleasure—and therefore profit and pleasure are combined.

A young lady in Bethel, Pa., during the year 1874, kept a strict account of all expenditures for food, etc., for her yard of fowls, and at regular market prices for eggs and chickens she cleared above all expenses \$300, besides having more stock on hand than she started with. Is not this an incentive sufficient to awaken an interest among the numerous fair readers of the farmers in favor of gallinaceous stock? It is certainly worthy of emulation.

BRREAKING COLTS.—The time to begin breaking a colt is when it is a suckling by the side of its dam. It should early be taught that it has nothing to fear from the presence of man, and that no harm will come to it from being fondled from head to foot. A very little pains at this period will soon make the colt perfectly gentle, and he may then be broken to lead by the halter, and to stand when tied. All his subsequent lessons should be by gradual approaches; the main point being to inspire him with confidence that he will not be harmed. He should be accustomed to the bridle by no means of the 'bitting rig' before any attempt is made to ride him; and the mounting should always be made by 'gradual approaches'—in the stall or the lot when the colt is perfectly familiar with all the surroundings. When it is desired to break him to harness, the same principle of gentleness, and care to avoid giving fright, should be practised. Place portions of the harness on him at a time, and let him carry it in his stall until he finds that it will not harm him; then lead him out with the harness on, alone, and again by the side of another horse, also in harness. Accustom him perfectly to the use of the lines, then let him make the acquaintance of the sulky, and push it after him, until he has found that it is also harmless. By pursuing this system of gradual approaches with perfect gentleness of manner on the part of the groom or other attendant, there need never be any trouble in breaking the most fiery tempered colt.—National Live Stock Journal.

STANDING HEN YARDS.—As often as once a week, through the hot months of July and August, it will be found a good plan to dig over and turn up the soil, spade-deep, in the earth floors of your fowl-houses, as well as through the runs about the outside of the poultry quarters. This easy process affords means for exercise again for the birds that are limited to contracted space. A great number of worms, grubs, etc. are thus brought to the surface, which the hens and chicks will devour greedily, and they will search for these vigorously.

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Twelve butter factories are, according to the Guelph Herald, to be set in operation this spring in the country to the north of Wellington. We wish them every success.