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Agriculture.

For the "Agriculturist."

Str.—In your King's County correspondent's letter of the 24th ult., there occurred a mistake, which corrected reads thus:—"For horses standing idle, a bushel of turnips is as good as a bushel of oats, both raw; if the oats were boiled, or well scalded, it will make a difference."

For a few seasons past farmers in this community who are averse to pasturing their mowing lands in autumn have been raising Southern corn—so called—as a substitute for aftermath, planting during the month of June at the rate of about three bushels per acre in drills 2 1/2 feet apart; it makes rapid growth, and by the time pastures fail in August is sufficiently grown for cow feed, thus keeping up the flow of milk by liberal feeding, morning and night, on through September.

Finding it such a success for fall feed in the past, I ventured the present season to plant an extra acre, in hopes that I may arrive at some successful means of curing it for winter feed. If you or any of your correspondents are in possession of a proper method of harvesting it, or rather preserving it, in large quantities without injury owing to its succulent nature, and will publish the same in the columns of the AGRICULTURIST, you will confer a favor. My intention is, when convenient, to make inquiry as to the most advantageous way of using barn manure in the green, or rotted, called muck in some countries, where they never use it otherwise, giving my view of it.

J. H.

King's County, Sept. 9th.

THE FARMER'S LIFE.

A not yet exploded idea of a farmer is that he is a man who stands upon the old ways—who is adverse to all new fangled notions—who is content to go on as his forefathers went before him—who takes little interest in the affairs of the great world outside him. A story is told that pretty well illustrates this idea. An old English farmer was requested once to subscribe for a new journal, but he declined, saying, "that his father had left him a number of newspapers that he had not read through yet." There are probably in this Province, as elsewhere, farmers whose way of life bears out the above idea (but we may be sure that their numbers are decreasing) who resolutely go in the old jig trot tusting to what their own experience may have taught them and to hard labor, and who turn up their nose at what they call "book farming," that is they scorn to profit by the experience of intelligent men who have reared what they have learned by study and from their own practice for the benefit of others. These farmers of an old and bad school do not see the use of education—"what is," they ask, the benefit of learning to a man who has to follow the tail of the plough all his life? The life of a farmer with such ideas cannot be attractive; and there can be no wonder, that a farm on which hard labor for the men and drudgery for the women is the almost unvarying course during the year should have little attraction for the youths bred up on it, and that they should resolve to fly the "old homestead," at the first opportunity, and seek their fortunes in a city or beyond the seas; and there is little wonder, also, that youths in the city who have the idea that farming is but a hard, dull, monotonous business should never think of it as an occupation.

But what a different aspect does farm life assume when the farmer is a man of progressive ideas, intelligent and educated, who, to his practice, joins study who does not slavishly follow the course prescribed in any book, but, who knowing the nature and capability of the soil he cultivates, uses his judgment in following the hints there given. He is always busy with some improvement. He experiments with manures to ascertain the different fertilizing effects; he studies to find out the best means of counteracting the effects of the pests that commit ravages in his fields, on his vines, and trees; he introduces the best food into his herd and flock; he knows, by testing, on what varieties of food his cattle can be kept in best condition with profit to himself; his stables and barns are constructed with a view to the health and comfort of his animals, and to the saving of their valuable waste, and his implements and machines are of the best and most approved patterns and kept in fine working order. The prosperous well kept aspect of his farm generally, impresses those who walk over it, that he is a master of his calling and proud of it. The interior of his homestead shows that he is a man of education

The Agriculturist

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ANDREW LIPSETT, Publisher.

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ANDREW ARCHER, Editor

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BREEDING POULTRY.

An illustration of the effect of breeding in-and-in upon poultry is fresh in the recollection of the writer. Many years ago, when a boy on the farm, we noticed that one of our neighbors had an abundance of delicious fresh eggs all the year round for table use, and during most of the year great baskets of them every week for market. On our farm we seldom had eggs to sell, and often none to use, although our fowls were well cared for, warmly housed in winter, and abundantly fed. They were apparently of the same breed as those of our neighbor, yet while they had eggs in abundance we had none.

BLIND STAGGERS AND POISONOUS GRASSES

The National Live Stock Journal has a very interesting and instructive article on the above subject, of which we give the principal portion:—"Certain seasons have their specific maladies, particular articles of food determine definite disorders with as much certainty almost as will the germs of a contagious disease. The connection between green apples and cholera infantum, and between unripe gooseberries and nettle-rash is widely enough known, but the no less intimate connection between the partially ripened seeds of certain grasses on the one hand, and dangerous nervous derangements on the other, is comparatively unknown. Yet, how often does it happen that a whole lot of horses, a herd of cattle, or a flock of sheep, are attacked with dullness, drowsiness, or frenzy in such a sudden and uniform manner that suspicious of malicious poisoning are aroused. In other localities, and consequently better understood, it is known under the names of stomach staggers, grass staggers, and blind staggers.

At the head of the poisonous grasses the different species of rye grass deserve to be placed. One, indeed, intoxicating rye grass, or darnel has had its poisonous qualities recognized from time immemorial, as shown by the writings of Theophrastus, Virgil, Ovid, etc.; and it appears to have been utilized in the middle ages by mixing it with barley in the manufacture of beer, so as to render that beverage more intoxicating. Growing among wheat, barley, oats, and rye, it is sometimes so abundant as to prove harmful to persons eating the bread prepared from these grains. In such cases it causes pains in the head, giddiness, dizziness of the eyes or ears, colic pains, nausea, vomiting, sometimes diarrhoea, jerking movements of the muscles, unsteady, vacillating gait, and an irresistible drowsiness and sleep. These symptoms come on during the night, and last for several hours. In animals the effect is nearly the same.

Horses, dogs and sheep are more susceptible than cattle and pigs; fowls lounge reject the action of the oil; rabbits succumb soon. The poisonous elements in this grass are a greenish oil, existing to the amount of one per cent. in the dried grain, and a non-soluble yellow material in the proportion of nearly two per cent. Both are extracted by treating the pulverized grain with ether. This active principle is, however, only found in the ripened seed. In the early stage of its growth, and up to the formation and ripening of the seeds, this grass is as wholesome as any other. Grass, therefore, which is but unripened hay made from young, unripened grasses, may be fed to stock with the most perfect confidence, though it should contain large quantities of even the Lolium temulentum. That which has been allowed to run to seed will be dangerous in exact ratio with the amount of darnel present."

Other species of rye-grass, flax, statean, and ferrenial are also liable to produce poisoning when the seeds have been allowed to ripen. Their comparative wholesomeness depends on the presence of a more restricted quantity of the two poisonous ingredients (green oil, yellow matter) but being grown as regular forage plants, and thus likely to be taken in larger quantities they are far more frequently the cause of the staggers than even the dreaded Lolium temulentum. The intoxicating and flax contain less "green oil," and more "yellow matter," than the "Italian" and "Ferenrial" rye-grasses. The yellow matter referred to appears to be the most active narcotic, causing the most violent tremblings and convulsions, while the oil, though also causing congestion of the brain, tends more to produce quiet, drowsiness, and unsteady gait. Hence trembling and convulsions are more marked in poisoning with darnel and flax rye-grass, and sleepy staggers more commonly follow the use of Italian or perennial rye-grass."

WOOL OF THE SHEEP'S BACK.—The ordinary breed of sheep met with in most countries do not change their coat, as has been clearly demonstrated by exhaustive experiments. They have been left unshorn for four, seven and eleven years without, any fresh growth being observed, although the original coat continued to increase by simple prolongation of the individual hair. The rate of growth is faster during the first three years of the sheep's life, after which it decreases gradually and considerably. In domesticated sheep the growth each year is most luxuriant immediately after shearing, in June or July, while in the wild breeds, as might be expected, it is most marked in winter time, with the severity of the weather demands additional protection.

THE CROP OF 1878.

The farmer who holds over his crop loses storage, shrinkage and interest, as well as any actual deterioration which may take place in the value of the crop. It is necessary for one year's crop to hold out till another one comes forward, so we may presume that on the average the consumer has to pay for six months' storage, shrinkage, interest and deterioration. If crops are not brought into consumption within an average of six months after they are harvested, the loss comes properly on the holder, who is not benefiting anybody by his speculation.

What I consider the proper way to kill a hog, is to get into the pen alone, work up to the victim carefully, scratch his back a little, perhaps, and before he is aware of any danger, slip a rope into his mouth; but by all means avoid any excitement so far as is possible. When the rope is well secured in his mouth, hand the end of it to an assistant, who will pull it tight, and as quick as you can get the hog into a good position, strike a good smart blow above his eyes with an axe. If the blow is hard, and aimed right, the hog will fall, and will not stop to do that most natural thing for a hog, that is, to squeal, and he may then be bled just as well as if not stunned. Besides the humanity of this method, another advantage is that it saves a large tussle which is required to throw and hold a large hog when in possession of all his faculties. It is not always necessary to rope a hog, but it is the safest way, as they may dodge if not held, and you will miss your aim, which is very undesirable; consequently, it is better to rope and hold them; then, if the first blow fails, it may be repeated instantly.

THE WHEAT CROP OF 1878.

Under the above heading, Mr James Caird, in a letter to the Times, says—"The agricultural returns for Great Britain show a small increase over last year in wheat and barley, and a decrease in oats. The extent under wheat has increased by 50,000 acres. Estimating Ireland at a little over last year, the total area of wheat in the market will be nearly 3,400,000 acres. From the general appearance of the crop on the ground, and the trials by thrashing already made in various parts of the country, there can be no doubt that the wheat crop now being harvested is a full average, and the best we have had for some years. The increased acreage and the additional produce will afford us £11,500,000 quarters for consumption. We shall require 13,000,000 quarters more, for which we must look to our foreign commerce and to our Indian and colonial supplies. During the past harvest year now drawing to a close, we shall have imported upwards of 15,000,000 quarters of wheat and flour. This is the largest import we have ever received. It has kept the price reasonable moderate, and the surplus has come mainly from the United States. The latest advices from that quarter show that, while the great crop of 1877 is not yet exhausted, the prospect of the present crop is much less satisfactory. In France the wheat crop is believed to be below an average, so that we are likely to meet our nearest neighbors in the market as buyers rather than sellers. There is thus much probability of the present prices being maintained, and perhaps slightly increased, but there will be no scarcity. Up to this date there is less disease in the potato crop than there has been for several years at the same time. The extent of this important food crop is much the same as last year. Young cattle and lambs have both increased, the first by 40,500, and the last by 263,000. There is thus already a satisfactory beginning made in the desirable object of extending our home breeds of live stock, and the abundant supply of provender, hay, and green crops this season all favor that object which recent legislation is intended to promote.

CURE FOR WOOL EATING.—A correspondent of the Landwirth writes that journal on the great losses he experienced among his sheep for years past, owing to their habit of eating wool. He tried all the remedies usually recommended, such as bicarbonate of soda, tartar, emetic, fir tops and so on, without the least success, and ultimately arrived at the conclusion that their evil habits must be due to a deficiency of chalk in his land. Thereupon in the course of last autumn he took to strewing a small quantity of chalk mixed with salt, on the fodder laid before the sheep, and in less than a fortnight they had completely ceased to eat their wool, and have never since resumed the habit, so long as he has continued the treatment mentioned.

MAINE AGRICULTURAL COLLEGE.—The fall term of the State College at Orono has commenced, with the Freshman class numbering 46. The college farm is producing larger crops than ever before, and there are a large number of experiments under way in spite of the hard times.

SLAUGHTERING SWINE.

When a farmer has to do a necessarily cruel thing he ought to do it as expeditiously, and inflicting as small an amount of pain as possible. The following remarks of a correspondent of the New England Farmer are worth reading:—"What I consider the proper way to kill a hog, is to get into the pen alone, work up to the victim carefully, scratch his back a little, perhaps, and before he is aware of any danger, slip a rope into his mouth; but by all means avoid any excitement so far as is possible. When the rope is well secured in his mouth, hand the end of it to an assistant, who will pull it tight, and as quick as you can get the hog into a good position, strike a good smart blow above his eyes with an axe. If the blow is hard, and aimed right, the hog will fall, and will not stop to do that most natural thing for a hog, that is, to squeal, and he may then be bled just as well as if not stunned. Besides the humanity of this method, another advantage is that it saves a large tussle which is required to throw and hold a large hog when in possession of all his faculties. It is not always necessary to rope a hog, but it is the safest way, as they may dodge if not held, and you will miss your aim, which is very undesirable; consequently, it is better to rope and hold them; then, if the first blow fails, it may be repeated instantly."

There is scarcely a farmer who does not know how useful is a dressing of plaster of gypsum to land bearing clover. But while this is thus, and although this is the best possible season to use plaster upon the young clover, yet it is very rare to see any use made of it at this time. Perhaps plaster has been hardly used by its friends more than by those who have no faith in it. Many things are said in its favor which are untrue, and what is worse, are unreasonable. We recently read an otherwise excellent article upon the use of plaster, which contained the statement that one of the benefits derived from it was that it attracted moisture from the atmosphere and so kept the ground from drying up. Now, that statement is untrue and unfounded, as any one may know who understands the character of this mineral. And so with many other wrong statements of it, based upon the erroneous statements. Plaster is a sulphate of lime in combination with water, consisting of 22 per cent. of lime, 4 1/2 per cent. of sulphuric acid, and 21 per cent. of water, not absorbed, but combined as water of crystallization. When raw gypsum is burned or heated to about 100° above the boiling point this water is driven off as steam, the massive gypsum fell apart into powder, the particles being forced round by the expensive steam; and if the gypsum is ground into powder, this boils and bubbles by the escape of the steam from the contained water. After the water has thus been driven off the gypsum becomes the ordinary plaster of Paris, so called, because it was first used as plaster at that city. This is the material used for hard-finishing walls, for cornices of rooms, and cements of various kinds, and is well known from its property of setting or becoming hard when mixed with water. This property of setting is derived simply from its recombination with water, from which it is separated by heating at the first, and its return to a solid condition. Now, it is evident that while in a raw state and already holding in combination all the water possible, it cannot absorb any more; nor can it part with its water to the soil, because to do this it would require a heat of 300°, or much more than that of boiling water, which is but 212°.

The simple truth of the matter is that sulphate of lime, in its combined state, is a constituent of many plants, but of clover especially; that lime and sulphuric acid, separately, are found in nearly, if not all, plants in some proportion; that gypsum, being a sulphate of lime, and containing both lime and sulphuric acid, is really a needed food for vegetation, but especially so for clover, for which it is a most necessary nutriment. As a plant thrives best when it is well supplied with proper food at the right time, and as the right time is when it is young and need to grow vigorously, it follows that just now a liberal dressing of gypsum upon the young clover will be found extremely beneficial. That it acts with greater effect in rainy weather is due to the fact that it is soluble only in 400 times its bulk of water, and that considerable rain is, therefore, needed to make it ready for absorption by the roots of the clover. Its rapid action is seen by the almost immediate deepening of the colour of the vegetation and the more apparent vigor of its growth.

The quantity usually applied is 100 pounds per acre, but this is not sufficient for a full effect. It is cheap, and a full dose can well be afforded. At \$10 per ton, 500 pounds per acre will be a very cheap dressing. If it is ground very fine the effect is produced more rapidly than when it is in coarse powder, and it is best to use it in the finest state of division. There are other uses of the farm for gypsum. As a purifier of stables, cesspools, poultry-houses, or other foul places it is very effective. We have heard from those in whose opinion we had confidence that it would not act as a deodorizer when in a dry state and not until it has entered into solution. This opinion, however, is not founded on fact. It operates as a deodorizer by absorbing ammonia and the pungent ammoniacal vapours which are produced by decomposing organic substances. It is capable of absorbing ammonia when dry, for it will quickly purify a foul poultry house when scattered freely about it, although the place and everything about it is perfectly dry. Besides, if a small quantity of dry powdered gypsum be placed in a glass tube, and a current of ammonia, which is really a gas, be passed through it from a bottle of ordinary ammonia water, it will be found that the gas will be absorbed in greater part, and its pungency be greatly diminished. However, in practice, it will be

found that to scatter it freely about stables, cow-sheds, yards, pig-pens, cesspools, manure heaps, slop-links and all such disagreeable smelling places, will quickly stop the odours and completely neutralize them. The effect is to unite the ammonia and the sulphuric acid of the plaster, producing an inodorous sulphate of ammonia, and to leave the lime free; this very soon uniting with carbonic acid, which is abundant in all decaying substances, and forming carbonate of lime. Gypsum is the more valuable because it helps to grow large crops of clover, which in its growth draws from the soil from a considerable depth many of the most needed substances for the growth of crops, and leaves them on or near the surface. The deep feeding roots of clover bring up from several feet below the surface phosphoric acid, potash, and nitrogen, and convey these to the leaves and stems, and large top roots. It is this effect of gypsum which gives it though the clover crop, the character of a general fertilizer, while being in itself only one of a special character. With gypsum we can produce clover, and with clover we can produce all crops—with time and patience.—New York Times.

BEST SHEEP FOR FARMERS.

The Kentucky Live Stock Record, in speaking of the best breeds of sheep for farmers, says:—"The best sheep for the farmer to keep are those that yield the heaviest fleeces and the greatest number of pounds of meat. The scrub sheep will yield from three to six pounds of wool per head, while Merinos will range between ten and twenty pounds, and thoroughbred Cotswolds more. Why it is that farmers do not raise the sheep which will give the heavy fleeces? Then as to the meat, the fine sheep produce an enormous amount of flesh, and does not eat any more from a scrub. But beside these facts, the fine sheep do not only yield large fleeces per head, but the wool is of a superior quality. The same is true of the sheep in comparison with scrubs.

Southdowns, for instance, are the finest mutton in the world, always commanding an extra price—a flesh which princes desire—while the fleeces are medium. The Shropshires stand next in quality, and are next to Cotswolds in fleeces. The profits of these breeds are very great in times of ordinary prosperity, and under all circumstances it is best for the farmer to breed them, because they pay better—the highest possible remuneration for his capital and labor. And all this concerning sheep is true of fine breeds of cattle, horses, hogs and poultry. In the face of these indisputable facts, the mass of the people should not handle scrub stock, and entertain an ignorant opposition to fine breeds.

HOW TO CAN FRUIT.

Glass and stone jars are the only kinds to use (for the acid of fruits will not be healthful if preserved in tin), and they can be purchased very cheaply. Nearly all the fruits retain their flavor better if they are not so much broken up. To four pounds of the fruit, take one pound of lump sugar, as it is less subject to alteration. Fill the jars within two inches of the top with the fruit; melt the sugar in very little water, and turn it boiling hot upon the fruit, place the jars in a pan of boiling water, and let them steam about ten minutes, or until the fruit, by the explosion of the cold air, has been forced to the top of the jar put the cover on at once, with a cloth, so as not to burn your hands, and screw it down tightly while in the boiling water; set the jars on the table to cool, and if any bubbles appear in them, take off the covers and boil again until the fruit is again forced upwards. Fruit canned in this manner will keep for years, and retain its flavor perfectly. Tomatoes can be preserved in stone jars with great success. Stew them for two hours in the jars, in the oven or over a fire; fill them up with the juice evaporates; then cover with a cotton cloth, and put in the large corks that came with them, so as to prevent the hot air from escaping. Make a sealing wax of one pound of Rosin, two ounces of beeswax and two ounces of mutton tallow, all melted together. Put it on while hot, with a brush, covering the cork and the sides of the jar completely. Keep in a dry, cool cellar.—Allaby Cultivator.

BEE NOTES FOR THE SEASON.—Where but a small amount of surplus honey is secured, it is usually best to dispose of it at a home market. It requires less packing, and, as a rule, will bring a better price. Large quantities will necessarily be shipped to a city market. The provision of a proper package for transportation is essential. For box honey the shipping-case should hold from 19 to 25 pounds, and may be neatly made as follows:—The size will depend upon that of the boxes to be packed; basswood lumber is most suitable: Cut two pieces, 3-4 or 7-8 inches thick, of proper dimensions, for the ends. At equal distances from the ends, and about one inch deep for a handle. A top and bottom, and four strips 1-1/4 wide, and of 1-4 or 1-2 inch in thickness, according to the size of the crate, constitute the remaining material of the case. Before packing, boxes should be nicely cleaned from propolis, and care taken in every way to place the honey in market in a neat and attractive package. The boxes which each case is to hold should be placed upon the scales and weighed before packing. With a little care in selecting boxes, fractions of pounds in a case may be avoided, which is desirable. The net weight should be neatly marked on the case.

All openings at the top of the hive should be closed so as to keep the interior warm, which will tend to continue breeding later in the season, and thus aid in securing a larger number of young bees for winter. Combs of honey from the heaviest hives may be changed for light ones in less prosperous colonies, and each thus have a sufficient quantity of food for winter. Each hive should contain about 25 pounds of honey. Avoid exposing honey whereby robbing may be induced. Where few hives are kept, the different operations may be performed morning and evening, when the bees are flying less freely, and robbing will be less likely to occur.—American Agriculturist. Clover, which had been nearly abandoned in Eastern Pennsylvania a few years ago, is now regaining its lost status as it should. It is really a far more important crop than is generally admitted. It is an enricher, not an exhauster of the soil.

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