

FARM ORCHARD AND GARDEN



[Mr. Wragg invites contributions of any new ideas that readers of this department may wish to present, and would be pleased to answer correspondents desiring information on subjects discussed. Address M. J. Wragg, Waukegan or Des Moines, Iowa.]

NITROGEN FOR THE ORCHARD SOIL.

Clover and cow peas, plowed under, enrich the soil. They convey nitrogen from the air to the earth, it is generally understood, but it has only been recently ascertained by what process of nature this end is attained. The experts of the Agricultural Department at Washington have made scientific investigations, taking clover as the principal nitrogenous plant. They discovered that clover roots, with nodules or knotty formations on them, are rich in bacteria that make the nitrogen. These roots disintegrate and convey the nitrogen to the soil. The peculiar bacteria have the faculty of husbanding nitrogen from the air. These government experts report that clover tops or green growth make humus and enrich the soil, after the manner of all green manure, but the nitrogen is contained in the nodules of roots. Their opinion is based on chemical tests, and is to the effect that leguminous plants, such as cow peas, possess the same power of attracting as of generating the bacteria that secrete nitrogen. Alfalfa also is rich with nitrogenous nodules.

Not all clover roots have nodules, but the barren ones are the exceptions.

Trees, crops of all kinds and vegetable growth deprive the soil of the vitalizing nitrogen, and is of the greatest importance to "rest," or restore, the impoverished soil.

Fruit trees are best fitted in growth by fertile soil, of course, but the fruits apples, peaches, pears, plums, and all berry crops, are made sound and well flavored by nitrogen conveyed from the soil, as well as in the air.

The Agricultural Department offers compressed cakes, like yeast, of the bacteria and nitrogen, from leguminous roots. These cakes can be utilized according to the directions concisely given, and the benefit will be the same as from plowing under a full crop of clover or cow peas. At the same time, clover plants and pea vines are secondarily beneficial to orchard soils. The green stems, roots and leaves make fiber and open the soil, while the nitrogen affects the subtle alchemy alike beneficial to otherwise rich, as well as to very poor, soil.

Selling grain and hay from the farm in bulk reduces the profit in two ways. It is expensive to handle and haul, and it takes away elements of fertility that should be saved and returned to the soil. Feed hogs, sheep and cattle, and so market your product in the most condensed form and in the easiest way—on the hoof—and keep up the land while you are cropping it.

UNPRODUCTIVE APPLE TREES.

I have in my orchard four apple trees of the crab variety. They are large trees, nearly a foot in diameter at the base of the trunk. They blossom every spring profusely, but bear no fruit. Can you tell me what the trouble is? Any information that can be given would be appreciated.—F. M. T.

The lack of fruit on your trees may be due to two causes. First, too vigorous a growth. Second, lack of fertility of apple blossoms. Oftentimes, if the trees are given too much plant food, they tend to go to the production of wood growth, and do not store up sufficient food to develop fruit buds. It is more likely, however, that the trees are of the varieties which are infertile with their own pollen.

This trouble is often noticed where block orchards of fruit trees are planted. Many varieties of apples require pollen from other than their own flowers to fertilize their blossoms. The remedy to follow in this case would be to top-graft with different varieties of apples.

The writer has known trees that never bore fruit, but blossomed profusely each spring, and after they were top worked with two or three varieties, the trees came into bearing.

It is said that one more egg per week will keep the hen. It can be seen how necessary it is to reduce the farm business to a science and make each producer on the farm produce to its utmost capacity.

DRAFTS IN THE POULTRY HOUSE.

No one has been able to ascertain why a draft of air blowing through a crack in the hen house, while a hen is on the roost, will prove detrimental to her health, when the same hen roosting in a tree can have all the feathers blown off her body, and the latter blow into another county, without any apparent disturbance, except as to location. An exchange says this is considered to be a fact.

Drafts in a poultry house are dangerous, and no mistake. Breezes in summer or winter will not hurt flocks or hens, if they are active and keep in motion. Sitting or roosting in a draft of air will prove dangerous to fowls, and should be avoided.

Don't have any drafts in the roosting room of the poultry house while the hens are at roost. At any other time they may do no damage.

Where the farm is distant from manufacturing centers, it is advisable to feed crops to stock and sell the meat, wool and dairy products, keeping up a good rotation of crops.

HEADING BACK TREES.

It is desirable, especially with the peach and plum tree, that we have as low topped trees as possible, so that a large per cent of the fruit can be gathered from the ground. To do this, the tree should be headed back in July. This is done by removing at least a half of this season's growth of wood, so as to make the tree bushy and low topped.

We are asked by a party anticipating planting out a new orchard if he would get healthier, longer-lived trees by planting seed and grafting the tree where it is to remain permanently, so as to save the removal of the tree.

Abstractly, a tree grown without removal, and allowed to grow and bear fruit just where the seed sprouted, is the best of all trees. Of course, there is no shortening of the tap root or mutilating of the laterals, which always occurs in the transplanting of a tree; but we have grown one orchard in this way, and can speak from experience that it is a very expensive and inconvenient way. While in the majority of cases a much longer time must elapse before the tree begins to bear, it is a well-known fact that by transplanting of trees they are brought into bearing sooner. We do not believe that it is advisable for the ordinary farmer to attempt to grow his trees in this way.

Learn to live out of the garden and cellar, instead of the grocery store, if you expect to become a prosperous farmer. Good food in abundance, and of great variety, grown on the farm, should be the first and foremost consideration of every American farmer.

WHEN CRICKETS SING.

When crickets sing and asters bloom in all the woodland ways, and far away the fields are best in haze; When in the corn there is a voice that whispers, "Summer's gone," And here and there a red leaf glows, first lights of an autumn dawn Then, soft as milkweed down, on me is laid the hand of mystery.

The woodland wavers; at my feet I hear the "fall grasses" sigh; Though lacking a name, The forest on earth, And needing no frame. The glow of the scene And the beauty of all Speak of the master, And the glory of Fall.

POULTRY NOTES.

Patronize your local poultry show. Don't be satisfied with only one visit, but go as often as you can, and enter at least some of your birds.

It is claimed by those who have used a bone cutter that the amount of grain saved by the use of green bone soon pays for the cost of the machine, so that we not only save grain by its use, but also insure a fuller egg basket.

The proper time for hatching early broilers is in the late fall and winter, which is also the most suitable season for incubators. The great obstacle to the production of early broilers is that the hens will not incubate until they are ready to do so of their own accord. By the use of the incubator, chicks can be hatched at any time.

Twelve inches is high enough for the roosts, and all should be of the same height—not one above another, ladder fashion. The advantages of a low and uniform roost are that it prevents bumble foot and other disease of the foot, and obviates all the quarreling and fighting on the part of the fowls to gain the topmost roost.

THROUGH EXPERIENCE.

Many farmers have become discouraged in exclusive grain raising by the past two unprofitable seasons. These reverses have caused a halt in their past system, and set them to thinking. Anything that will get a farmer to thinking will do him good. The past season has done that effectually.

We find much interest taken in everything that is said in the institutes the past winter along the lines of diversified farming. While farmers were raising good crops of wheat they could see no poetry or profit in feeding pigs or calves and milking cows. It was hard to make the farmers believe, while crops were good, that there would ever come a time when grain raising would become unprofitable. They have met with that experience, and while it may seem a hard experience at the present, I think it will have its good effect in starting them along more profitable lines.

Shredded fodder should be handled intelligently. It will keep well when not put up too green or when wet with rain. While it may be stacked out of doors, it is best to put it in the barn or shed.

FRUIT FOR EVAPORATION.

So much is said about the advantage of fruit evaporating to make a market for otherwise unsalable fruit that many may think it makes little difference what its quality may be. The truth is that only the really good fruit should be used for the evaporator. It may be, and often is, unsalable, because of blemishes which affect its looks, but do not impair quality. But to take green, worm-eaten fruit and put it through the evaporator is a mistake. Its first effect is to discourage the consumer, making him think that evaporated fruit is not so good as he expected. Poor fruit is not worth much for the pigs, but that or other stock is the best market for it.

Clean seed means the reaping of a clean crop.

Time is never lost in fitting butter for market. Bear in mind that you are establishing a reputation which will enable you to sell your butter readily at all times. When the market is on the decline, poor butter always gets the hard knocks.

Have you ever noticed that it is the special crops that pay? This is an age of specialties.

WHEAT AS A PASTURE.

The favorable growing weather has produced a very rank growth of plants in the winter wheat fields throughout Oklahoma and Missouri. It has been found of great benefit to the crop to pasture off these wheat lands during the fall season, thus encouraging the stooling of the plant. The early sowing and encouragement to a strong root system is believed to be greatly to the advantage of the plant in sending up a vigorous stalk growth when the spring season opens up. The close pruning of the wheat plant, by pasturing, after it has become well rooted and commenced throwing out a strong growth, has been found extremely satisfactory. It is the early pasturing, while there is yet time for a later fall growth for winter protection, that is advocated.

The pasturing of the winter wheat must be conducted with care and system. Sheep are the most satisfactory grazing animals to turn on the wheat field. They graze more uniformly, bite off their feed with less tension, or pulling, and they do not pull the plants out of the ground like cattle. Sheep are a benefit in packing the soil, where cattle or horses are frequently a damage by tramping out the wheat and cutting up the ground.

The wheat field should be protected when the ground is wet; no kind of stock should be permitted on it; the ground should be comparatively dry when the stock are turned in. It is usually best to turn in a few hours each day and then remove them, unless the fields are large and the growth such as to demand continuous grazing, in order to keep down the growth.

The advantage that a lot of stock may get from a wheat pasture for occasional grazing during the fall and winter can scarcely be estimated, only by those who have experienced its value. Winter wheat districts will find the sheep a valuable help, both in grazing of the overgrowth in the fall, and gleaming the stubble after harvest.

'Tis Nature's own picture, Though lacking a name, The forest on earth, And needing no frame. The glow of the scene And the beauty of all Speak of the master, And the glory of Fall.

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All Were Safe Behind This Engineer

Incident Shows Constant Watchful Care Demanded of the Man Who Drives a Present Day Locomotive.

"The quick perception of a locomotive engineer and his watchful regard for the safety of his train were brought forcibly to my attention recently," said a traveler to the Birmingham (Ala.) News. "We were speeding along at the rate of about thirty-five miles an hour on a wide tract of level country. It was a heavy trans-continental train carrying twelve cars. Suddenly the air brakes were applied with all their force and the cars came to such a violent halt as to almost hurl the passengers from their seats. The sleeping-car porter, who was mounted upon a step-ladder engaged in turning on the lights, was forced to an acrobatic stunt in the middle of the aisle. The passengers hurried from the cars to learn the cause of the sudden stop. Those of them who had expected a collision when the first shock came peered out for the other train, but did not see one. It was just twilight and we were out on the prairie some miles from a station with not even a farmhouse in sight.

"At second glance the engineer, a big, red-faced fellow clad in blue overalls, was seen making his way down by the side of his train with a dripping torch in hand, peeping under the coaches as he moved slowly on. He was intent upon finding something, and from the earnestness of his search one would have been led to believe that he had lost his watch or his pocket book. 'What's the trouble?' called out a curious passenger, himself on the ground and, like the engineer, looking under the cars. 'A little bolt dropped out of the eccentric of my locomotive, and if I had not stopped when I did the machine would have torn itself to pieces and perhaps wrecked the train,' was the reply of the railroad man. 'I must have that bolt, as I am without another to take its place,' he continued, and going on with his search, he was rewarded by finding the coveted piece of steel. It was picked up under the trucks of the last sleeper, thus illustrating what a quick stop had been made. Gathering up the bolt the engineer returned to his locomotive, and, crawling under the iron monster, hammered for a few minutes and then scrambling out, announced that he was ready to proceed on the journey. The passengers who had watched the operation climbed aboard again and we were off. The incident seemed simple, but, as I have said, it served to illustrate the quick perception and the keen caution of the man who had the safety of several hundred human lives in his hands."

Romantic Girl That Knew Her Business

Millionaire Aged Suitor Had No Bad Habits at Present but She Recognized Possibilities of the Future.

The old multimillionaire crooked one rheumatic knee at the feet of the beautiful debutante, while in the distance the orchestra was playing some leit motif from Raumbimsky's sublime works, and the haunting melody filtered through the tropical vegetation that screened them from the dancers.

"Miss Youngbuddle—Ethel, I love you!"

"But, O, Mr. Stocksandbonds, I—I," stammered the sweet young thing, noting, however, that her official stenographer and recording photograph were in good acoustic positions.

"Ah, Miss Ethel," the old multimillionaire was saying, "it is in the meridian of life that we can appreciate woman's worth and her cheering, divine presence. All else have I—palaces, automobiles, yachts—but without you they are as nothing."

"Ah! Mr. Stocksandbonds," blushed the debutante, "I would marry you, indeed I would, but for one thing against you—your personal habits."

"But," protested the old millionaire, with dignity, "I have always considered myself—and so have my friends—as a very criterion of morality and clean living. Unlike the worthless and poverty stricken young rakes of these days, Ethel, I am not only fabulously rich, but have absolutely no bad habits."

"That's just it, Mr. Stocksandbonds; that is just why I must refuse you," said the girl, in a tone of infinite sadness.

"Impossible!" gasped the aged millionaire. "Do you mean to say that you would admire bad habits in a husband?"

Dreadfully, sadly, the romantic young debutante pulled to pieces a red, red rose.

"Tell me," persisted the suitor, "why you would wish to see me dissipated."

"Why, er—er, bad habits shorten life, you know," murmured the maiden.

But then, reflecting that she could easily drive him to drink after marriage, the romantic girl accepted the suitor.—New York Herald.

To Use "Wireless" Through the Jungle

Vast Stretches of South America to Be Equipped with the New Method of Communication—Advantages to Commerce.

Among the many important installations of wireless telegraphy already in operation, or soon to be constructed, one of the most interesting is the proposed line in Peru which is to be established between Puerto Bermudez and Iquitos, a distance of 1,000 kilometers (621.37 miles). The reasons influencing the choice of wireless telegraphy for this purpose apply with equal force in other places in South America and Africa, and are chiefly the superstition of the natives as regards the wires and insulators and the difficulty of penetrating the forests and jungles to construct an ordinary line. In Peru it has been considered for some time of the greatest importance to establish communication between Lima and Iquitos, the main port on the Amazon, and while there was telegraphic communication across the Cordilleras, the wires did not extend beyond Puerto Bermudez, which was accordingly made the starting point of the wireless system. A contract has been awarded to a German company to provide the apparatus, and this will give it a virtual monopoly of wireless telegraphy in Peru.

Between Puerto Bermudez and Iquitos the plan is to have three intermediate stations and ultimately to extend the line to Manaos on the Amazon and then down the river to Para, thus affording direct communication between the Atlantic and Pacific coasts. There already is a cable up the Amazon, but the service is frequently interrupted, and in the upper water the swift currents would have rendered the laying of such a means of communication impossible. As wireless telegraphy has proved successful at sea, between islands, and over large tracts of land in Alaska, it is interesting to have a practical demonstration as to whether equally good results will be achieved in actual practice in the impenetrable forests of South America. If such is the case, there will be, without question, a wide application of the idea, as it will put within reach at small expense districts otherwise quite isolated.

Brought to Light 18th Century Sign

Discovery Interesting to Archaeologists Made by Accident at Glasgow, Scotland—Specimen of Exquisite Carving.

A curious discovery was made the other day at the foot of the High street, Glasgow. The second house from the Tolbooth Steeple is "Hopkirk's Land," which contains the shop where David Dale, the great eighteenth century philanthropist, established himself in business in the yarn and hosiery line. The building, of seventeenth century erection, remains much as it was in Dale's time. For many years a cellar beneath the house has been little used, but a few days ago a shelf which had served its day was cleared away, the support of which turned out to be Dale's long lost sign—a wool pack carved in wood and gilt. There was another eighteenth century hosiery business in Glasgow which displayed the swinging lamb—the Golden Fleece of old Spain, which was borne on the banners of the great Duke of Alba when invading the Netherlands. Both signs are remembered, but if the lamb has been made into kindling wood, the wool pack is now in safe keeping, although it is considerably the worse for having rested on the flagged floor of a cellar for sixty years, and the gilt is now only discernible in parts. The carving of the wool pack has been done by a master hand, and it would be a good object lesson for wood carving students who are endeavoring to revive an almost lost art. The lamb sign for the hosier's business is very old, and has reference to St. Agnes, who suffered martyrdom in the year 306 when only 14 years of age. The saint has been usually depicted by artists with a lamb by her side. In days when the common people of England could not read printed signs, the first man in a town or village to set up business in yarns and hosiery adopted the lamb sign. A competitor would choose the wool pack.

Shah and Suite Dreaded the Darkness

Radium Exhibition Spoiled by Childish Fright of Persians—Absence of Light Probably Held Suggestion of Assassination.

There was an element of humor in the interview which took place in Paris between the shah of Persia and M. Curie, the French scientist. His majesty had expressed his desire to see the wonders of radium, so a telegram was sent to M. Curie asking him to present himself at the Elysee palace hotel.

"Your name and your great discovery are known to us in Persia," said the shah, after the manner of an "Arabian Night" potentate addressing a magician. "I wish to see this famous radium, which is described as having the most marvelous powers."

"Sire," replied M. Curie, "I can satisfy your curiosity, but not here, for the light is too strong. In order that you may properly see the brilliance

of radium I must show it in a room which is dark—entirely dark." The shah, whose nervousness is very well known, did not take kindly to the idea of a dark room, and called his grand vizier, who suggested drawing the curtains of the room, but M. Curie persisted that blackness was necessary. Thereupon the shah called M. Paoli, the French detective protector of royalties, who assured his majesty that there was no danger. So the party descended to the underground apartment in the hotel known as the safe room.

M. Curie began expounding the properties of radium, and then gave a signal for the electric light to be switched off. Immediately a panic seized the shah's suite, and all cried out in Persian and in French, "Light! Light! Turn on the light!" The electricity was switched on again, and the disappointed savant was forced to show his radium in a lighted room.—London Chronicle.

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