

Fertilizing Fall Wheat

When to Use Artificial Fertilizers and When Not To.

Some people think that fertilizers are all composed of the same ingredients, and as long as they apply something that is called "fertilizer" all will be well, and a bumper crop and bumper profits will result accordingly. There can be no greater mistake than this. Nothing can be worse than this "hit or miss" way of using fertilizers.

Unless a man understands at least a little about the ingredients that go to make up artificial fertilizers he had better leave them alone entirely.

Although we do not know as much about feeding plants as we might, still, experiments with fertilizers have been going on now both by practical farmers and scientists for over thirty years, and the knowledge thus gained is not to be despised.

There are some ten elements required for the proper growth and development of the plant, but usually we only have to supply four of these in manure and artificial fertilizers, as the soil almost always has a superabundance of the other six.

The elements that have to be supplied are lime, nitrogen, phosphoric acid, and potash.

Artificial fertilizers are not usually sold for the lime they contain, as this element can be obtained more cheaply from the lime quarries in the form of ground limestone. Ground limestone should be applied to the soil once every five or six years at the rate of two tons per acre to make up for the quantities that are being continually leached out of the soil.

Nitrogen, when bought in fertilizer, costs about eighteen cents per pound. It stimulates the growth of leaf and stem in the plant, and when used in proper proportion with the other elements of fertility is a very useful ingredient. When too much of it is used on grain crops they grow too tall and lodge. Also when too much nitrogen is used the plant is very apt to be attacked by fungus diseases.

Phosphoric acid is very necessary for the proper filling out of the grain. It hastens the maturity of the plant and has the remarkable property of inducing increased root development.

Potash is required to produce strong straw. Having the property of aiding the formation of starch, it helps considerably to fill out the grain, and it has been observed that plants well supplied with potash are much less liable to be attacked by rust and other diseases.

Different soils differ of course in the amount of these elements they contain. Sandy soils are usually deficient in nitrogen, potash, and phosphoric acid. The roots, on account of the open texture of the soil, can ramify and spread, and phosphoric acid is not so much required as it would be on a soil of closer texture. Potash is the fertilizer sandy soils require most.

On clay soils, on the other hand, phosphoric acid has not only proven to be beneficial because of actual lack of this element, but also because it tends to make the roots spread out, and thus, to a certain extent, counteracts the tenacious nature of the clay. The nature of the soil, then, and the state of its fertility has to be taken into account before fertilizers can be used with any intelligence.

Wheat is a deep-rooted plant and can utilize the phosphoric acid and potash reserves in the soil much better than shallow-rooted plants like oats and barley can.

When fertilizers have not been used before, however, and if the land is not exceptionally fertile, it will be found that an application of about 250 pounds of acid phosphate or basic slag, with about three hundred pounds of wood ashes per acre, will be very beneficial. When fall wheat follows clover or a hay or pasture crop, this application is not so necessary, but after a grain crop the land has not received any fertilizer it should not be neglected.

The fertilizer should be sown, preferably with a machine. There are two kinds of machines on the market: the broadcast machine and the drilling machine that sows the fertilizer with the grain. The broadcast machine is much the most desirable, as if the fertilizer is sown too near the grain, and especially if a heavy dressing is given, there is danger of the young plant being injured. On every farm that has been under cultivation for any considerable time there should be a machine for broadcasting fertilizer. This machine can be used not only for applying special fertilizers like basic slag and acid phosphate, but also for applying the ground limestone.

If one does not feel inclined to invest in a fertilizer machine, the fertilizer can be sown by hand just as seed is sown. To get a good distribution it is necessary to increase the bulk of the fertilizer to at least half a ton per acre before sowing. This is done by mixing it with sand, dry earth, or ashes. By Daniel McKee, B.S.A., in The Canadian Countryman.

At the Four Counties Inn, which lies between Tamworth and Ashby-de-la-Zouche, England, it is possible, without leaving the building, to eat in Leicester, sleep in Staffordshire, drink in Warwickshire, and smoke in Derbyshire.

"Henry," whispered the bride of two hours, "You don't regret marrying me, even yet?" "No, darling," replied Henry. "Not even yet!" The train sped on, and she was happy for another five minutes.

CHILDHOOD DANGERS.

No symptoms that indicate any of the ailments of childhood should be allowed to pass without prompt attention. The little ailment may soon become a serious one and perhaps a little life passes out. If Baby's Own Tablets are kept in the house minor troubles can be promptly cured and serious ones averted. The Tablets can be given to the new-born babe as well as the growing child. Thousands of mothers use no other medicine for their little ones. They are sold by medicine dealers or by mail at 25 cents a box from The Dr. Williams' Medicine Co., Brockville, Ont.

PEEPS AT PEOPLE.

Is thirteen an unlucky number? The Germans in South-West Africa must think so, for there are thirteen letters in General L. Botha.

The Chief Rabbi, Dr. Hertz, who has been visiting the Front, is not so well known as his predecessor, the late Dr. Adler, but this disadvantage will disappear in time. He has a horror of being interviewed, which is why his name is so rarely seen in the newspapers.

The actress who possibly feels the deepest interest in the Australian troops is Miss Marie Lohr, Australian-born herself. Her birthplace was Sydney, and her first stage appearance was made there. Her father used to be treasurer of the Opera House, Melbourne.

Very amusing for the dryness of his remarks in the House, Mr. Harry Watt, the broad-shouldered M.P. for the College Division of Glasgow, is the most sartorially resplendent figure in Parliament to-day, with his white Ascot hat, his white spats, and his huge satiny cravat.

Mr. John Buchan, whose fine story of the second battle of Ypres in "The Time" has added largely to his reputation as a writer on the war, achieved the difficult task of inducing Sir Edward Grey and Mr. A. J. Balfour to preside at his lectures on the conflict on separate occasions.

The reason why Mr. Wm. R. Pringle, the very active Scottish M.P., opposed the National Register Bill, is that he believed all the information could have been got from the records of the Insurance Commissioners, and he wanted to save the extra expense. His views may be wrong, but no one doubts his courage.

A statesman whose name you never hear mentioned is Lord Morley, who is a member of the Cabinet when we declared war against Germany. It is his wish during the war, it is understood, to be forgotten. If Mr. John Burns did not attend the House of Commons so regularly, he would, it is to be presumed, suffer the same fate, too.

King Nicholas, the homely monarch of Montenegro, the war chiefs of which received decorations at our hands, has a pleasant wit. To a visitor he once remarked: "When you speak of the few exports of my country, don't forget my daughters"—an allusion to the brilliant marriages they have formed. One daughter, for instance, is married to the King of Serbia.

Black is now the habitual wear of Queen Alexandra, and it becomes her hands, has a pleasant wit. To a visitor he once remarked: "When you speak of the few exports of my country, don't forget my daughters"—an allusion to the brilliant marriages they have formed. One daughter, for instance, is married to the King of Serbia.

Mr. Lucien Wolf, who has been revealing the clumsy attempts of the notorious Count Bernstorff, the German Ambassador in the United States, to influence newspaper opinion in London, is known for his researches into the history of the Rothschild family, and he has added considerably to our knowledge of how the bankers brought the first news of the Battle of Waterloo to this country.

FAMILY FOOD

Crisp, Toothsome, and Requires No Cooking.

A little boy asked his mother to write an account of how Grape-Nuts food had helped his family. She says Grape-Nuts was first brought to her attention where she visited.

"While I was there I used the food regularly. I gained weight and felt so well that when I returned home I began using Grape-Nuts in the family regularly.

"My little 18-months-old baby shortly after being weaned was very ill while teething. She was sick nine weeks, and we tried everything. She became so emaciated that it was painful to handle her, and we thought we were going to lose her. One day a happy thought urged me to try Grape-Nuts soaked in a little warm milk. "Well, it worked like a charm, and she began taking it regularly, and improvement set in at once. She grew well and round and fat as fast as possible on Grape-Nuts.

"Some time ago several of the family were stricken with La Grippe at the same time, and during the worst stages they could not relish anything in the shape of food but Grape-Nuts and oranges, everything else was nauseating.

"We all appreciate what your famous food has done for our family."

"There's a Reason." Name given by Canadian Postum Co., Windsor, Ont.

LIFT UP THE OLD FLAG.

All hail, Britannia, unconquered for ever,
Thou blest rock of ages enduring for aye;
With loyal devotion that time shall not sever
We'll defend thee like men or fall in the fray.
Then forward and lead the van,
Canadians every man,
Stand proudly to arms with thy face to the foe,
From forest and rolling plain
With pride we will shout again,
For the land of the Maple, yo-ho, lads, yo-ho.

The flag of Britannia, Canadians, remember
Undimmed yet in glory still waves on the breeze,
The boast of the hero that will never surrender
Nor dishonor her name on land or on seas.
We're no cowards to tremble
When the Northmen assemble
O'er the wild field of battle triumphant to go;
As gallies we march along
Every man join the happy song,
For the land of the Maple, yo-ho, lads, yo-ho.

That old British flag, let us gather round it,
Moor its staff on the rock, fling its folds to the sky.
'Tis the flag of our fathers; in glory we found it.
In glory we'll leave it, or defending we'll die.
Its fame who won't cherish
Let his name ever perish,
To the depths of derision the coward shall go;
While we sing loud the happy strain
Let the hills and rocks ring again,
For the land of the Maple, yo-ho, lads, yo-ho.

Proud ensign of Canada, long may it wave
Over country and King, for our faith and our laws,
As a shield to the weak and a hope to the brave,
Where right is our watchword and honor our cause.
For freedom a thousand years
It has braved, amid hopes and fears,
The arts of the traitor and wiles of the foe.
Come, then, let us shout again
As loyal and noble men,
For the land of the Maple, yo-ho, lads, yo-ho.

St. Marys, Ont.

—WILLIAM JOHNSTON.

ADVANCE WINTER PREPARATIONS.

By A. P. Marshall, Niagara Falls, Canada.

Many blighted hopes for heavy winter results with poultry can be directly traceable to the neglect to furnish or correct early enough things that, while they do not in any way cause trouble, yet when severe conditions begin to appear they catch the flock unprotected and susceptible to disease and unable to withstand the first severe changes when they come.

Birds, therefore, should be early housed in such a way as to prevent any possibilities of contracting disease. All windows should be in place, any cracks to cause drafts should be filled up, and everything that will add to the necessary winter comfort of the birds should be provided, so that when winter really comes along they should be used to the conditions they are to have. If any changes are necessary in the coops, the summer ones are arranged for the better. Hence get accustomed to certain things, and it always bothers them to have any changes made. If a decision can be reached as to the exact arrangement and equipment desired, it is best to have it carried out as early as possible, and get the birds accustomed to all their surroundings, so that they can get well started to business before the worst of the winter begins. If well started, they can be expected to do their best right through the winter.

Now is the time to decide whether a new floor will be put in, whether dirt or sand will be obtained to supply new material for the floor, or what change will be made in the nests, hoppers, roosts, or other inside surroundings. Generally if some careful thought is given the matter in advance, better arrangements will be the result, than if everything is left to the last minute and provided for only when need becomes absolutely imperative.

There are many other ways that provision can be made for the coming winter that will not only prove a saving, but often things can be provided which otherwise might not be readily procurable when one might be willing to do almost anything to secure them. Grain as it is being harvested, green food of a very great variety, and many little farm products that are practically a waste to the farmer can be procured for a song, and the saving and advantage to the birds be

such as to bring bigger results than can be secured any other way.

What must not be forgotten is the culling of the flock to as nearly what are to occupy the coops, and the arrangement of the pens, so that no change will be necessary among the birds. Nothing seems to upset a flock more than the continual changing of the birds, and if it is possible to have the layers and breeders settled well before winter sets in, the increased results will repay for any extra effort or consideration given at this time.

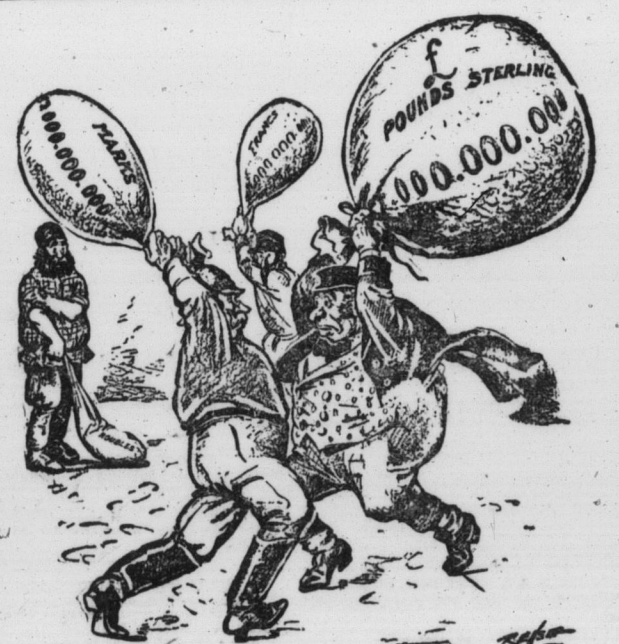
The best birds for breeding should be selected, and any special attention given them now will show later in the chicks. No better time can be found to determine the probable breeding value of the birds than when they are growing, and especially when they begin to reach maturity. By selecting those that keep coming right through, growing vigorously, the whole season through, the best in vitality of the breed's production will be used and the best results can be expected from them as breeders.

The males should be selected as early as possible and given every consideration that will make them mature into vigorous, hearty birds that command all that they preside over. To lose his spirit usually makes a male less valuable as a breeder, and continuous abuse at the hands of another will completely break the spirit of an otherwise good bird. No risk should be run of ruining a particularly good specimen in this way, especially if he is in the least timid, but on the other hand, particular pains should be taken to encourage him to feel that he is cock-of-the-walk, and his development will be so much better, that his services will be very much more than was otherwise possible.

The foregoing are only a very few ideas that present themselves, and merely suggest that it is well about this time to try and think ahead, and placing ourselves in the position of the winter season, think out all the possible requirements that will be possible to arrange for now, and do so, save money, and have things that will be impossible to readily supply without making the cost prohibitive.

Tea Costs More Money.

In a recent issue of the London (Eng.) "Standard" it was stated: "That prices of tea have risen and are now at their highest point for thirty-six years." This reflects the greatly increased cost of tea at the gardens whence the world's supply originates. Tea is undoubtedly costing more throughout the world.



THE WAR OF MONEY BAGS

—From The New York World.

Those Terrible Pangs of Kidney Suffering Can be Cured

Don't give up! You can be cured and made well again. That backache and dragging weariness can be stopped for all time. Those sharp attacks when bending over, and that lameness in the morning can also be overcome. Every ache and pain due to kidney weakness will disappear quickly once you start to use Dr. Hamilton's Pills, a marvelous remedy long ago made famous by its strange healing effect upon the kidney and liver. Don't wait till that dragging pain in the loins grows worse. Start the cure to-day. Delay will mean swelled ankles and limbs, sharp rheumatic pains in the muscles and joints, and other painful symptoms as well. If you are always tired, have continuous headache, dizzy spells and spots before the eyes, or ringing noises in the ears, these are common symptoms that warn you of the immediate need of Dr. Hamilton's Pills of Man-drake and Butterbush. Sold in 25c boxes by all dealers in medicine.

RISKS WITH CHEAP SEED CORN.

Bad germination in seed corn, combined with prolonged cold weather at time of planting, has been the cause of much disappointment this season to ensilage growers. The seed corn growers of south-western Ontario through being unable to find a market for their thoroughly-dried corn of strong vitality. Many samples were taken by seed inspectors, and the investigations made indicate clearly that at least 75 per cent. of the cause for a poor stand can be traced to the ensilage growers buying low-priced seed.

Unfortunately, high-priced seed is not always a guarantee of high quality, but low-priced seed is possible only with corn that has no special care in curing for seed. The farmer who gets \$1.50 per bus. of 70 lbs. on the ear for corn taken out of his corn crib in the spring has more profit than the farmer who receives \$2.50 a bus. of 70 lbs. on the ear for corn that has been kiln-dried or rack-dried in special corn-drying buildings.

If harvested in dry weather and kept in narrow cribs through the winter, the cheap corn may give a fairly satisfactory stand of plants with thick seeding and good soil and weather conditions. But too many farmers have learned to their sorrow the very serious risk they take in using corn wintered in this way. It is always advisable for growers to procure seed corn on the ear, as during moist weather shell corn in transportation or storage will absorb moisture and mold within a very few days, thus destroying its vitality.—Seed Branch, Ottawa.

Minard's Liniment Cures Burns, Etc.

Liked the Eats.
"Did the new cook come this morning?"
"Dropped in about 12."
"How do things seem to suit her?"
"Well, she liked the lunch I gave her so well that she has agreed to stay for dinner."

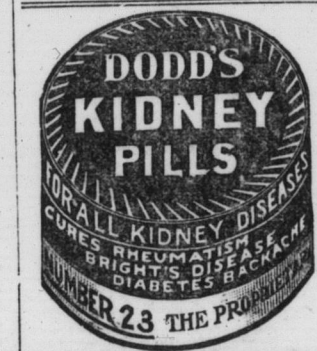
Minard's Liniment Co., Limited.
Dear Sirs,—I had a Bleeding Tumor on my face for a long time and tried a number of remedies without any good results. I was advised to try MINARD'S LINIMENT, and after using several bottles it made a complete cure, and it healed all up and disappeared altogether.
DAVID HENDERSON.
Belleisle Station, Kings Co., N.B., Sept. 17, 1904.

Grateful.

Mr. Bullion Bag (to Count Spaghetti, about to marry his daughter)—See here, count, let me give you a tip.
Count Spaghetti (holding out his hand)—Thank you, sare.

Minard's Liniment Relieves Neuralgia.

Using a Shovel.
The foreman of a large iron works was short of laborers, and, as a last resort, went to an old tramp who was lying asleep beside one of the furnaces, and roused him with the question:
"I say, my man, are you wanting work?"
"What kind of work?" asked the tramp.
"Can you do anything with a shovel?"
"Yes," replied the tramp, rubbing his eyes. "I could fry a piece of ham on it."



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NO REFUND OF WAR TAX.

A matter of importance to the public and the railways has been settled by the Government. A nice point has been raised as to the possibility of refund of the war tax in case a person should change his or her mind in regard to the contemplated trip by train or boat. If the railways insisted upon the tax in such cases of changed intention, it was altogether likely that the public would set them down as extortioners.

Accordingly the railways submitted the questions to the Government—what should be done in case unused tickets presented for refund to agent before the train starts; to agent or general office after train departs; the same or some following day; in the case of passenger tickets; in the case of parlor car tickets; in the case of steamship tickets. The answer which the railways received was as follows:

There can be no refund of the tax under any circumstances. Once the ticket is sold and the tax collected, it is as though it were in the Dominion coffers and nothing but an act of Parliament can get it out again. It was explained by the Dominion authorities that in order to prevent the confusion that would arise in applying literally the millions of tax stamps that would have been required on railway tickets and the consequent difficulties which would have ensued owing to delay in affixing and cancellation of stamps, the present method had been adopted, and that as none of the public could have reasonably expected a refund on a stamp that had been affixed and cancelled, if ticket were refunded upon, so also no refund may be expected wherever a tax had been collected, and the ticket unused and refunded upon. In other words, the act of purchase of the ticket in accordance with the Tax Act is a completed transaction so far as the collection of the tax is concerned, and under no circumstances as the law now stands could it be refunded. To make a refund of the tax possible a special act would have to be passed by parliament.

Getting It Straight.

Husband—You spend altogether too much money.
Wife—Not at all! The trouble is you don't make enough.

Corns Instant Relief Drop Out

Paint on Putnam's Corn Extractor to-night, and come feel better in the morning. Magical the way "Putnam's" eases the pain, destroys the roots, kills a corn for all time. No pain. Cure guaranteed. Get a 25c bottle of "Putnam's" Extractor to-day.

Close Distinction.

"What is your reason for thinking your party ought to be successful next election?"
"I didn't say it ought to be successful," replied Senator Sorghum firmly. "I said it is going to be."

Minard's Liniment Cures Dandruff.

A Mystery.
"Joan of Arc was a spinster; was she not?"
"Yes; why?"
"Oh, I was just wondering how she got her armor buttoned up the back."

LOW FARES TO THE CALIFORNIA EXPOSITIONS VIA CHICAGO & NORTH WESTERN RAILWAY.

Four splendid equipped daily trains from the New Passenger Terminal—Chicago to San Francisco, Los Angeles and San Diego. Choice of scenic and direct routes through the best of the West. Something to see all the way. Double track, automatic electric safety signals all the way. Let us plan your trip and furnish folders and full particulars. Ask for free booklet "Highlights of some of the Forty Ways and More to the California Exposition." It will save you time and money. B. H. Bennett, G.A. 46 Yonge Street, Toronto, Ont.

Safe Conjecture.

Tramp—"Please, mum, I'm a Belgian refugee."
Lady—"Are you? Mention a town in Belgium."
Tramp (cogitating a moment)—"I would, mum, but they have all been destroyed."

Minard's Liniment for sale everywhere.

Count your blessings and you will have no time to think of disagreeable things.

Gorillas build nests among the branches of trees, in which the mother and young ones sleep, whilst the father sleeps at the foot of the tree, mounting guard over his family.



The Freedom of the City of London can be purchased for about £28.

Archimedes, once arranged a number of mirrors so as to bring the rays of the sun to a point called a focus, which means a hearth. The heat thus gathered from the sunshine is said to have been sufficient to set fire to the Roman ships, which were besieging the harbor of Syracuse.

FALL SKIN SORES

When troubled with fall rashes, eczema, or any skin disease apply Zam-Buk!

Surprising how quickly it eases the smarting and stinging! Also cures cuts, burns, sores and piles. Zam-Buk is made from purest herbs. No animal fats—no mineral poisons. Finest healer! Druggists and Stores Everywhere.



FAIRIES FOR SALE.

I'M LOOKING FOR A FARM CONSULT me. I have over Two Hundred on my list, located in the best sections of Ontario. All sizes. H. W. Dawson, Brampton.

NEWSPAPERS FOR SALE.

PROFIT-MAKING NEWS AND JOB Offices for sale in good Ontario towns. The most useful and interesting of all businesses. Full information on application to Wilson Publishing Company, 73 West Adelaide St., Toronto.

MISCELLANEOUS.

CANCER, TUMORS, LUMPS, ETC., Internal and external, cured without pain by our home treatment. Write us before too late. Dr. Bellman Medical Co., Limited, Collingwood, Ont.

DIRK'S RED MITE KILLER

One application KILLS all Mites and prevents their reappearance during the season. Keeps fowls free from body lice. Makes scaly legs bright & clean. Keeps hard, rusty and sweats free from ants. Redbugs will give no trouble where used. Write today for special trial price. Booklet free. Marshall & Marshall, Niagara Falls, Ont.

