

Soils and Crops

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Is Your Tractor Ready for Spring Work?
If your experience is at all like mine you will know that there are many things you forgot to do last fall. Perhaps you didn't drain the fuel line, oil the valves and cylinders carefully, clean out the hard oilers, wipe the engine up in general, or replace a broken spark plug.

In order that we do things up in good shape as we go, it will be a good plan to start with the dirtiest work and make a clean sweep of things all the way through.

The first equipment you need is a big bunch of waste and a bucket of kerosene. Clean all of the dust and grease off the engine and engine frame, so that when you get at the inside work there will be no grease and grit to slip in where it is not wanted.

Remove all of the hard oilers, scrape out the old grease and open up the passage to the bearings with a nail or a piece of stiff wire. Then fill the cup full, and turn in at least three good big-cupfuls of grease so that the bearing is well covered with a coat of five lubricant.

Having finished that job, start in on the transmission. The case will need draining so that all of the sediment will be removed from the bottom of the casting. Wash the case out clean with kerosene. Pay close attention to the condition of the gears; there may be a badly worn one that will need replacing before the season is done. If everything seems in good shape, put in fresh oil and replace the cover.

There is one other dirty job to do, and I hate it most of all; it is cleaning up the crank-case. It is a good plan to take the bottom off the case, so that the work may be done thoroughly. Take a piece of string and tie the oil gauge up so that it will not be damaged when the pan is let

down or replaced. Drain off the oil and loosen the pan. Scrape out the dirt and slime that will hang to the pan and wash it clean with kerosene.

While the case is out of the way, is a good time to look for a loose connecting rod. If there is one, it takes only a few minutes to remove one of the thin shims from each side of the bearing and tighten the rod as it should be. The bearing must be snug, with no vertical play; a little side play will do no harm.

When the bearings are in shape, put the pan back in place and pour about two gallons of kerosene in the crank-case. Turn the engine over several times so that the old oil will be washed off the crank-shaft and inside of the case. Do not run the engine with kerosene in the crank-case. This is dangerous, for it is very easy to heat a bearing that is not well lubricated, and kerosene is not a lubricant. After rinsing the case, remove the kerosene, fill the case with fresh lubricating oil and turn the engine a few times so that the oil will work into the bearings before the engine is called upon to do any work.

That is about all of the heavy work. Next, take off the cylinder head and inspect the valves. There is a possibility that one, or more, is in need of grinding after the heavy fall plowing and silo filling that was done last fall. If they seem to fit snug, let them alone. You might grind on a valve a half-day and not get the finish on it that has been put there by the continual tapping of the valve upon its seat.

When the cylinder head is off, clean out all of the carbon deposit. There are several good carbon removers on the market. But when I think of an engine filled up with carbon I recall a paragraph in an old tractor book that came with an old tractor that I used to operate:

"When carbon has deposited, there

is only one safe way to remove it—scrape the cylinder and head, piston rings and grooves. Do not rely upon patent carbon removers—they are ineffective in most cases."

The engine is now almost ready to put to work. Put everything together and we will start on another part that will not be so greasy and dirty to handle. Examine the radiator to see if it leaks, the pump to see if it needs repacking, and the hose connections. If there are new connections around the shop, put that down on the repair list.

As a matter of precaution, clean the lime and settings out of the cooling system. Caustic soda or a dilute solution of hydrochloric acid will do the job in good shape.

The fuel line usually needs a little attention. Drain the tank and remove the little catch pot at the bottom. This probably has in it an accumulation of dirt and water that has settled out of the fuel tank during the season.

On most machines there are one or two little screens through which the fuel must pass on its way to the carburetor. These should be taken out and cleaned so that the fuel will have a clear path. After this is done, the fuel line will be in readiness for service when the carburetor is cleaned up.

Try the magneto; if it gives a good spark, then you are in luck; just let it alone. If you fool with it, you may have something to fix that requires closer attention. If some of the wiring is oil-soaked, it should be replaced with clean wire. New contacts should be soldered on to the ends so that good connections may be made easily, both at the magneto and the spark plug terminals.

Remove the spark plugs and clean them up, set the points with a gap of one-thirty-second of an inch, and put them back.

Now fill the fuel tank, fill the radiator, open the needle valve and set the impulse starter. After turning the engine over several times, it should start off in fine style. The carburetor will probably need changing a little, but aside from that the machine is ready for a good season's work.

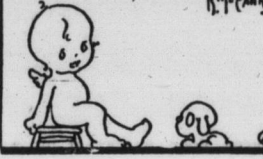
This is What Limits Your Profits

Are the profits from farming limited? Yes, I suppose one must answer that they are, for crop yields are limited by the weather, climate, cultural conditions, seed, soils, etc. But in other ways they are certainly unlimited.

I make it a practice frequently, after the day's work is over, to crank up the car and ride about the country. I am never disappointed, for each time I discover something new and something interesting and worth while to my business of farming and dairying. One evening last summer while riding I noticed a field of wheat, cut and shocked, which was exceptional. We have had a very dry, poor season for small grains in this section—so I drove into the yard and asked the owner how he had such a fine crop of wheat when others were so comparatively poor. He told me that it was planted on new ground, ground that had raised only one previous crop, and that he expected it would raise good crops for several years yet.

THE CHEERFUL CHERUB

How strange those righteous beings are who never care for fun. But simply spend their time on earth reforming everyone!



I told him he might make it always raise exceptional crops if he would give it proper treatment, but he shook his head and advised me to look around the country some more, and see if I found any fields which were producing exceptionally that had been under cultivation as long even as twenty years. I know of only one such field within a radius of ten miles of my farm. But in a few years I am going back to the same man, invite him to ride home with me, and then I shall show him a whole farm that is producing exceptionally, and one that has been in crops for sixty years.

I did not stop long enough to discover this man's theory in soil fertility, but long enough to know that he believes his yields must necessarily increase each year. This belief limits his profits accordingly. Nearly everyone knows now that we may steadily build up our soil, and that it will pay a good profit while we are making it as fertile as it was in its virgin state. And if we go even further than that and actually make it richer than it ever was, who can say what the limit of production per acre may be?

One of us who read this paper are stockmen, or at least we keep some stock. And if the profits from farming and crop production are unlimited, they are certainly so from stock-raising, horse-raising, dairying, etc., for no one can say just how much milk our cattle will produce, or what price we may receive for our surplus stock, if they be pure-bred. Many bulls, both beef and dairy, have sold for tens of thousands of dollars, and horses and hogs and sheep have likewise brought tremendous prices.

So when we feel respondent about farming as a business, when we think how little profit we are receiving let's think, too, how very unlimited our opportunities are. Let's resolve that we will build up our soil each year, and that we will raise registered pure-bred stock, and we will find our profits increasing until we will wonder ourselves if they really are limited. And then when he began to wonder, and think, the answer will come: Yes, the profits which a farm may yield are limited. They are limited by the size, broadness, progressiveness, and capacity of ourselves.

Buy Thrift Stamps.

The Welfare of the Home

The Fresh Air Cure.

"How is Nannie this morning, sister?" Mrs. Edwards carefully closed the outside door before she answered her breezy visitor. "Not any better than I can see. She just coughs and coughs until I am nearly wild—go in and see her."

Aunt Nancy pushed open the bedroom door. In the hot, stuffy little room lay a young girl. "Hello, Nannie," she said, and then she bent over and whispered mysteriously, "I am going to tell you a secret: I have come to abduct you."

The flushed spot on the thin white cheeks grew a little deeper and the big eyes almost sparkled. "What do you mean, auntie? You don't look very bold and bad."

"Well, I am, and the coach is at the door. Come in, sister," she called to Mrs. Edwards. "Give us your blessing; were going to elope."

Nannie's mother appeared, worried and anxious. Worn out with the care of an always sick family, she had little resistance to offer to her sister's brisk, authoritative ways. Now she could only quaver a troubled, "What ever do you mean, Nannie?"

"I mean I am going to steal Nannie and take her home with me."

"Oh, I would never dare let her. She hasn't been out of this room for three weeks. If she should catch cold now—"

"But she isn't going to catch cold. It's as warm as wax out of doors. All she needs is to be fastened up on some of this fresh air and sunshine."

In spite of Mrs. Edwards' protests Aunt Nancy began to collect what would be needed for the trip. "Don't worry, Ella," she went on, "I'll return her better than raw, and I'll give you a little rest as well. You have your hands more than full with the other children. Just fix an egg and some milk for Nannie and we'll get started so we can reach home while the sun is still high."

A little later, curled back comfortably in the automobile, Nannie was trying to find words to express her delight. "I never dreamed it was so lovely! I can't see it fast enough, or hard enough. I just want to eat this air in big chunks—it's exactly like getting out of a prison."

"That's exactly what it is, child, when the world is just spilling over with the only thing that you need!"

When they reached the end of the long ride Aunt Nancy ushered her niece up the stairs. "Why, what have you been doing, auntie? What is that new door at the end of the hall?"

"Just wait a minute. Didn't I tell you there was a surprise? Come in here first and get off some of those wraps."

"But what are all those interesting things on the bed?" She held up a wonderful warm, woolly dressing gown as she spoke.

"Slip right into it," commanded Aunt Nancy. "It's 'most big enough for two of you, but I expect you to grow into it. Now, here's a little cap."

You certainly do look 'spiffy', as Jessie would say. Now this way for the great mystery!"

Reaching the end of the hall she threw open the new French door. "Behold the bride's bower!"

Nannie gasped. "Oh, auntie, what a beautiful sleeping porch!"

The daintiest of beds was waiting for her. "Pop right in; Jessie has it ready—she's coming in a minute with some nice, fresh milk."

Nestled down in the big white bed, Nannie sighed happily. "Do you know that lovely little poem, 'May be building her house, Auntie? I feel right in the midst of it.'"

The branches of a tree almost brushed against her cheek, and at that moment a friendly cardinal swayed lightly on a little twig and pecked out a lusty cheer, cheer, cheer!"

"Bless his heart, that's just the way I feel. The only trouble is, I'm afraid I'll get well too soon, and then I'll not have any excuse for staying here."

"I'll tell you, Nannie. Presently, when you get to looking real chipper, we will send for your mother and the children to come and spend the day. She's always been afraid to let any of you have any fresh air, but when she sees what it does for you she will change her mind. Your father has paid out enough in doctors' bills to build several porches like this—and you never will want to sleep indoors again, winter or summer. You know we always slept out before we came here, and we just loved it in the winter, too. One learns something wonderful every season. When you get to hobnobbing with the birds and the trees and the stars, little worries don't amount to much—and then you feel so well all the time that trifles don't matter."

Under the new treatment Nannie fairly blossomed. Dozens of fresh eggs and quarts of warm, creamy milk added to unlimited fresh air, soon made Nannie look truly like new.

"To think that my own sister had been giving those children, and that poor sick girl, separated milk! Of course she didn't know what she was doing."

Hardly a day passed but Nannie discussed market problems and family secrets with the birds. She listened with her soul as "the little stars sang together."

For the first time in her life she began to feel the music of the Psalms.

"There's so much 'doing' all the time that I can't bear to waste such a lot of it in sleeping—but I just can't help it," she confessed.

Happy weeks rolled by, and then one day her mother came, bringing the four pinched, narrow-chested younger children. They had a tubercular inheritance and Mrs. Edwards felt the cloud hanging over her always, but nothing could convince her that the one thing they needed was all round them, and fresh—fresh air.

Now she had indisputable proof—and the sequel of this story is that the whole Edwards family "moved out" within a fortnight.

SAFETY FIRST.

We heard a great deal about safety during the war, and as far back as history goes we have the story of ways in which men have endeavored to safeguard themselves, from coats of mail to dugouts deep in the ground and covered with fathoms of solid concrete and steel. When the Covenanters of Scotland were driven from their homes into the mountain fastnesses, one small company seeking safety from the dragoons found refuge in a cave far up a ravine among the mountains. They accepted this retreat as the best protection to be found, and, although they knew that they were not altogether safe even here, their confidence was not in the earthly rock, but in the Rock of Ages, in whom they had always trusted and who had never failed them. They remembered the promise, "He that dwelleth in the secret place of the Most High shall abide under the shadow of the Almighty." He is my refuge and my fortress.

Making themselves as comfortable as possible, they ate their cold supper and lay down in their cloaks to get such rest as they could under the circumstances. As they slept, a spider dropped from the mouth of the cave to the ground below and made the first strand of a web across the opening. Back and forth it ran, then round and round, weaving a silken cloth so fragile that a stroke of the finger would destroy it, yet so strong that it furnished a better protection to the sleeping wanderers than a wall of solid stone could have done.

Morning broke and as the light appeared a company of soldiers with their guns and sabres crept stealthily up the mountain side among the trees and rocks, searching for the fugitives who had slept in the cave and were now shut in by the spider's slender web.

They came to the mouth of the cave and, thinking that they had perhaps found the retreat of those they sought, were about to enter, when suddenly the one ahead stopped, and the quiet watchers within heard him say to his companions: "There is no use in taking time to search here. The mouth of the cave is covered with a spider's web. They would surely have broken it down if they had entered." So they passed on, leaving those who had dwelt in the secret place of the Most High abiding in safety under the shadow of the Almighty's wing. Great rocks would have been rolled away; walls would have been scaled or broken down; but a spider's web was a perfect protection to those who were in the keeping of God.

It is well to take all precaution against disease and danger. It is well to choose your companions and your path in life to keep away from temptation and to guard yourself from sin. But it is most important of all that you put yourself into the hands of God, for then, though every contrivance that you can conceive has failed, you can still have peace because you have made the Lord your refuge, even the Most High your habitation.

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without extra land, labor or seed

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What Does the Country Need?

For years we have heard much regarding the work of the farmer, the needs of the rural school and the value of the rural church. There seemed to be the feeling that if the farmer was enabled to raise big crops and sell these crops for fair prices, if we could have up-to-date churches and schools in our country districts everyone would be happy. And so speakers eulogized or pitied the farmer as the case seemed to demand, much oratory was forthcoming regarding the schools and volumes have been written regarding the country church. What is the surprise of the public to find suddenly that the country woman refuses to be satisfied with a recipe for mustard pickles and patterns for tatted medallions? They are coming to realize that they have a profession as dignified and demanding quite as much expert knowledge as that of the farmer, the teacher or the minister.

Someone has well said, "The home is that institution for which all other institutions exist." That being the case, does not the home-maker have something of a task, and isn't it time that we brought to her some of the information now at hand for improving her profession? Men in all kinds of work are studying to make themselves more proficient in their work. They try to take advantage of every discovery of science, every bit of useful information and all the skill they can acquire. Most interested workers are collecting their own libraries on subjects bearing on their work. It is safe to venture that not one home-maker in twenty has yet a professional library, but many of them are realizing the need for it and are asking for help in selecting books.

But why this new interest in her work? Some people—only a few—have begun to realize that the late Col. Roosevelt was right when he said, "The farmer should realize that the person who most needs consideration on the farm is his wife." She makes a very large contribution to the success of the farm business by raising her family.

On a farm not far from ours there lived a splendid farmer. He knew his business and worked hard and intelligently, but as the neighbors expressed it, "Charlie just seems to

never get on." And he didn't. His wife had not lived on a farm before. She could not bear to work with "those dirty chickens," wouldn't "mess around" with milk and butter and never had hoes in a garden and never expected to. Moreover, it was too hard to can the surplus fruit and vegetables so she bought hers ready canned. She "adored" extravagant clothes, and then she wanted some place to wear them, and as the country women had little time for social affairs she had to have a horse and buggy and then she was constantly so she could drive into the village to numerous parties and "functions" of other kinds. Do you wonder that the neighbors said, "Poor Charlie. Jane surely leads him a merry chase. She's no good as a farmer's wife. He ought to have known better than to have married her." It took all he could make to pay the rent and keep up the household expenses and he never had any time for a vacation himself. However, this one good thing came out of having this couple in the neighborhood. Some of the men began to appreciate just how much a home-maker can do to make or mar the success of his venture as a farmer.

After all, the farmer and his family are seeking just what all of us are seeking—a well-rounded, abundant, satisfying life. And many of them are just now realizing that the great country life interests are human interests, that good fat steers and cribs overflowing with corn are not ends in themselves, but are worth working for only because of what they will purchase for the family in the way of satisfaction and happiness. And that is why the purchaser needs the assistance of trained persons quite as much, no, we would say more than does the producer. Intelligent consumption must keep pace with intelligent production if the largest satisfaction is to be had.

Think it over! Would it not be the part of wisdom to give to the wife as good conveniences, as good a working plant, the same opportunities through the press, through lectures and through the association with trained leaders to learn what would be valuable to her in her profession, as it is to give these things to the farmer?

Spohn's

Which breed will produce most the most profitably? We believe that the American breeds are the best, such as the Plymouth Rocks, Wyandottes and Rhode Island Reds. The Barred Rocks are vigorous and mature early. White Wyandottes are possibly the premier broiler chicken because of the plump carcass free from all dark pin feathers.

White Leghorns are good for squab broilers and they mature rapidly but for the trade demanding a two and a half to three pound bird, the American breeds seem to meet with more favor.

The heavy Asiatic breeds, like the Brahmas and Cochins, grow to a large size, but their growth is not rapid and broilers must be developed quickly and have a frame containing meat as well as feathers and bone. The feed bills determine the profit on the broiler and this makes the factor of early maturity of prime importance.

Select the breeding stock with regard for early maturity and vigor. The birds that are slow in feathering are apt to be lacking in vigor and, of course, they are not easily developed into good broilers. It stands to reason that their progeny is apt to be endowed with the same characteristics. By selecting the best birds for breeders we can develop a strain in most any breed that will show a vast improvement in the quality of the broiler stock.

Do not try to make quality broilers out of black feathered breeds. Undoubtedly the quality of the meat will be first-class but the customer will not know that. Broilers are difficult enough to pick clean without having black pin feathers to complicate the work.

The man who earns more than he gets is in line for promotion. Set out at least one hard maple tree this spring; more if you can. Raising a tree is next to raising a boy or girl.

The boy who plays truant from school seldom brags about it after he grows up.

One of the finest things in life is making father and mother comfortable and happy in their declining years.

Young folks should be a little critical before marriage and a little less critical afterward if they are looking for conjugal happiness.

Spohn's Dairy

We have raised many bulls on our farm, and I do not know whether it is due to our method of raising a bull or that our bulls are of a good-natured strain, but we have seldom had an ugly or vicious one. It is a fact that the older a bull gets the more likehood of his getting vicious. There are, however, certain things that should be taken into consideration by every bull raiser.

No matter how gentle a bull may look and act, look upon him with suspicion, for any bull, no matter how well you know him, remains a rather dangerous and unreliable farm animal.

When cleaning his pens or using him for service, it is best to keep an eye on him and walk backward out of the pen. This may sound ridiculous to a reader who has full confidence in his bull, but it deserves recommendation, for one minute of carelessness may result in hours of regret. On our farm we have many pet animals, but never a pet bull.

The bull calf is always treated rather harshly. He gets his feed, but is never caressed; and when he refuses to play he is soon brought back to his place, so that he learns that his owner is not a plaything, but his master.

Teasing or beating should not be allowed, for the day will come when he will repay you in his own way. Another important lesson that should be taught early is leading and tying. If the bull is accustomed to these two things while still a calf, he does not know anything else. We ring our bulls when they are about a year old, and teach them to lead with a staff. When these things are left until an older age the bull is liable to be angered and attempt to retaliate.

The young bull that is ready for service should never be kept in a narrow stall or in the dark, for these things certainly are hard on his temper, and are liable to cause difficult handling and viciousness.

A bull should enjoy freedom, plenty of fresh air, and sufficient light. Keep him in a well-lighted stall with an outside paddock, and water him at least twice a day or, still better, have fresh water in reach at any time. It is a well-understood thing that bulls should never be left loose with a herd of good dairy cows.

I want again to urge you never to trust a bull. You can never be sure of what he is going to do.

Maple Syrup For Every-body.

Most of the articles on the making of maple syrup are of interest only to those who have a large number of trees. A great majority do not belong to that class. Any family having from eight to fifty trees should save money by making maple syrup every year.

The outfit is not expensive. Mine costs less than three dollars, and from fifty trees the gentle two years we made twenty-one and seventeen gallons respectively of fine syrup for which we could have taken three dollars per gallon.

The first essential is a good sap spout. Ours are made of steel, with hooks on which to hang the sap cans. Insert these in holes bored on the well side of the trees about two feet from the ground. Our sap pans were secured from the local bakery, they being galvanized cans in which pie material is packed. Near the top edge of each of these we punched a hole with a ten-penny nail to enable us to hang the pails on the spouts. This kept the receptacles up where the wind would not blow the sap outside and waste it.

For boiling we use a sheet steel pan five inches deep by 22x22 inches for our four-hole stove. If one has a six-hole stove a pan 22x22 inches is the proper size. Remove the lids and the other parts and set the pan on, filling it about one-third full of sap. At the same time clean out the reservoir and fill it with sap to be heating for replenishing the supply in the pan as it boils down.

Each morning strain the contents of the pan in a preserving kettle to finish off by carefully boiling to the right consistency after clarifying by the addition of a small amount of sweet milk. Can the syrup in glass cans or jugs while it is still hot.

This whole outfit will not cost to exceed three dollars, and a single cord of wood will boil down about eleven gallons of syrup. Remember one can do this at a time when there is very little else to do. The time spent not only brings good returns but the product adds to the satisfaction of living.

A hen that makes a lot of fuss over an egg is seldom a good layer.

Eggs produced by the back yard flock are fresh. Store eggs? Well hardly.

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